



3 1761 09026322 9



Presented to the
LIBRARIES *of the*
UNIVERSITY OF TORONTO

by

THOMAS F. McILWRAITH





Digitized by the Internet Archive
in 2014

<https://archive.org/details/systemofuniversa02malt>



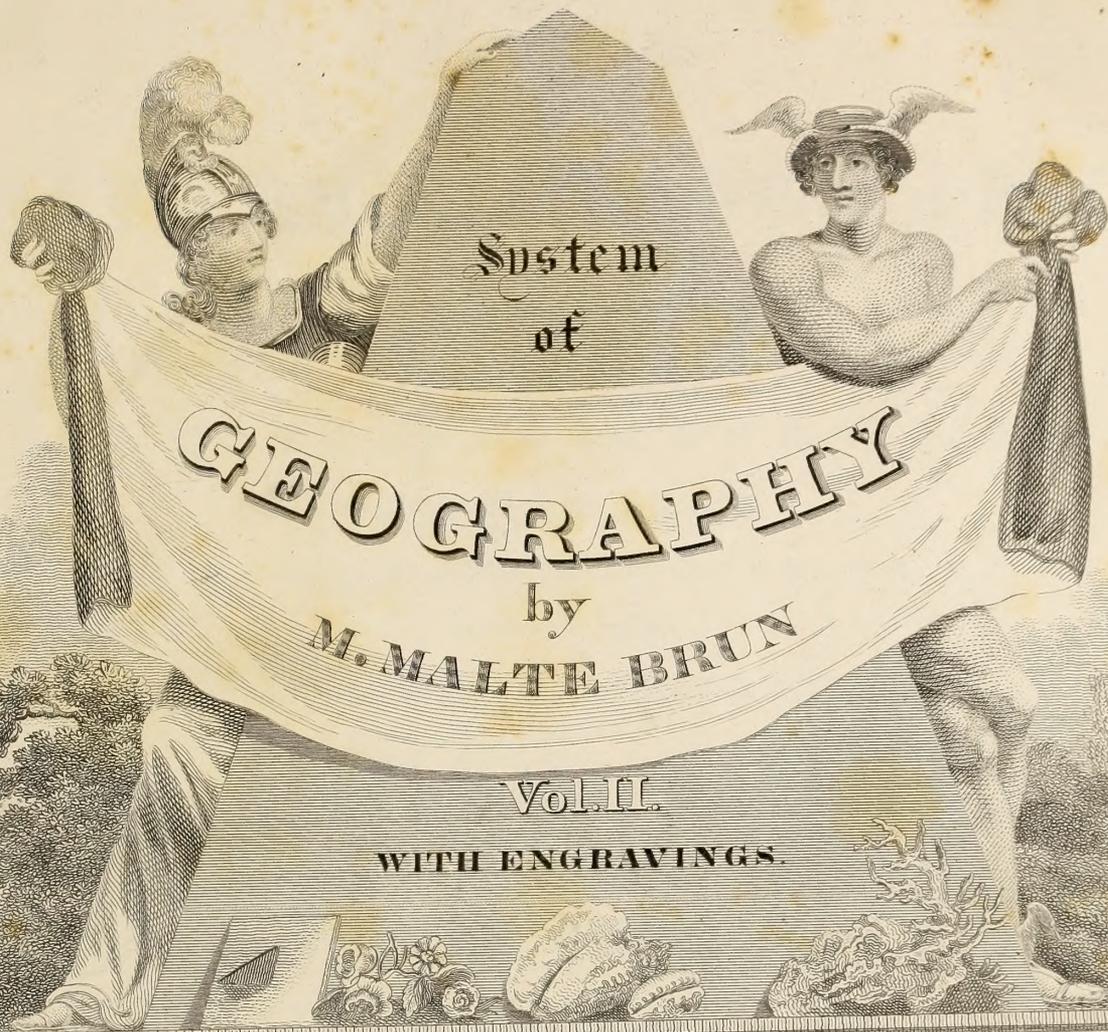


LARDNER & CO. Engravers & Lithographers, N. York.

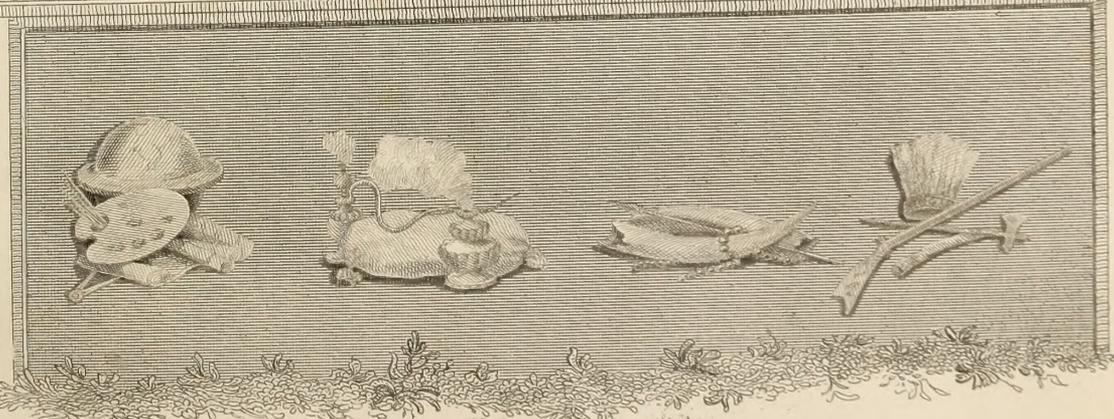
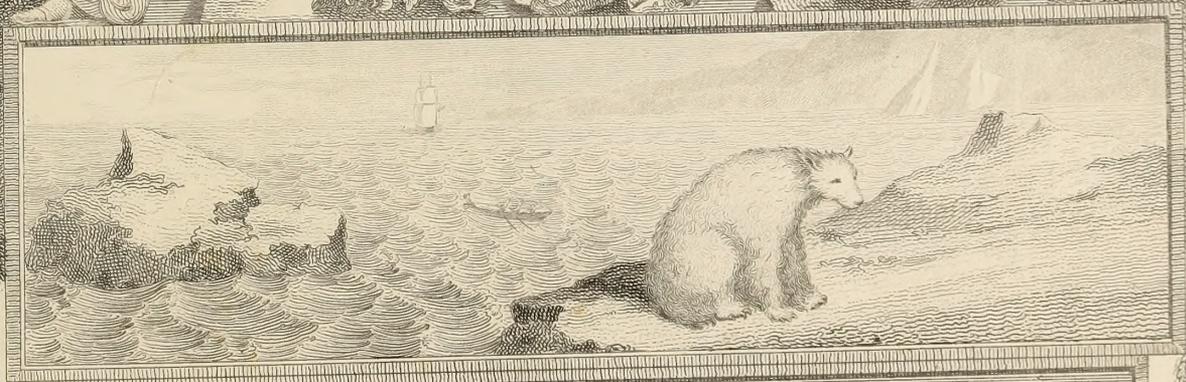
H. Brown & Co.

CAPITOL OF THE UNITED STATES, WASHINGTON.

Vol. I. page. 320.



Vol. II.
WITH ENGRAVINGS.



D. Johnston del.

W. L. Ormsby, Carter, Andrews & Co. scul.

Printed & Published, by Samuel Walker BOSTON.

A
SYSTEM
OF
UNIVERSAL GEOGRAPHY,
OR
A DESCRIPTION
OF
ALL THE PARTS OF THE WORLD,
ON A NEW PLAN,

ACCORDING TO THE GREAT NATURAL DIVISIONS OF THE GLOBE;

ACCOMPANIED WITH

ANALYTICAL, SYNOPTICAL, AND ELEMENTARY TABLES.

BY M. MALTE-BRUN,
EDITOR OF THE "ANNALES DES VOYAGES," &c.

WITH ADDITIONS AND CORRECTIONS,
BY JAMES G. PERCIVAL.

EMBELLISHED WITH

A COMPLETE ATLAS,

AND

A SERIES OF BEAUTIFUL ENGRAVINGS.

IN THREE VOLUMES.

VOL. II.

BOSTON:
PRINTED AND PUBLISHED BY SAMUEL WALKER.

1847.

DISTRICT OF MASSACHUSETTS, *to wit* :

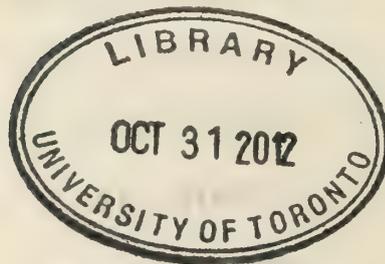
District Clerk's office.

BE IT REMEMBERED, that on the third day of January, A. D. 1828, in the fifty-second year of the Independence of the United States of America, Samuel Walker of the said District, has deposited in this office the title of a book, the right whereof he claims as proprietor, in the words following, *to wit* :—

System of Geography. By M. MALTE-BRUN, editor of the "Annales Des Voyages," &c. With additions and corrections, by JAMES G. PERCIVAL. Embellished with a complete atlas, and a series of beautiful engravings. Vol. I. Stereotyped by James Conner, New-York.

In conformity to the Act of the Congress of the United States, entitled, "An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned;" and also to an Act, entitled, "An Act supplementary to an Act, entitled, An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned; and extending the benefits thereof to the arts of designing, engraving, and etching historical and oth. prints."

JNO. W. DAVIS. } *Clerk of the District
of Massachusetts.*



ADVERTISEMENT.

WHEN we undertook to prepare this edition, we only engaged to make such additions, and corrections in point of fact, as would adapt it to the present state of science, and particularly to this country. We have since found it necessary, from the imperfect state of the translation, to revise it throughout on the original, and we flatter ourselves that many errors will be thereby avoided. This edition, then, will differ from others by the addition of notes, and by the correction of all errors in translation, and in point of fact, which have caught our notice. We have endeavoured to give the whole work a careful revision, and, although we do not pretend to have rendered it perfect, yet we trust it will not be found seriously defective. We need not say any thing as to the value of the work. It has been already sufficiently established in the good opinion of the public. We have had to perform, in this edition, a very humble, although a laborious office, and if we have rendered the work more complete, in any respect, we shall feel that we have not altogether failed in what we have undertaken.

J. G. P.

CONTENTS OF VOL. II.

☞ **TO THE READER.**—When the present work was put to press, the whole was expected to be comprised in two volumes. But owing to the London copy making nine instead of seven volumes, and thereby increasing the number of pages for the second volume to more than double the number of pages given in the first volume, it has been deemed expedient to divide the second volume, and commence the third volume with page 681. An extra title page is given, and the Contents and Index are so arranged as to cause no inconvenience to the reader.

BOOK LIX.

AFRICA.

A General View of this Division of the World, and its Inhabitants.

Africa little Known,	3
Seas and Gulfs,	3
Promontories—Straits—Isthmus—Rivers—Configuration of the Mountains,	3
Mountain Chains—On the Existence of a Central Chain,	4
Reasons against its Existence,	4
Why has Africa few Islands?	5
Plains and Table-Lands—Rivers without Outlets—Periodical Swellings of the Rivers,	5
Climate—Temperature,	5
Contrasts of Fertility and Sterility,	5
General View of its Vegetation,	6
Animals—Peculiar Animal Forms,	6
Man—Three African Races,	6
Languages of Africa—Progress of Civilization—Primitive State,	7
Fetichism,	7
Theocracies of Meroë, Thebes, &c.—Internal Revolutions of Egypt—The Carthaginians,	7
The Romans—Christianity—The Arabs and Mahometanism,	8
The Turks—Modern State,	8

BOOK LX.

EGYPT.

PART I.

A Physical Description of this Country.

The Nile, its Sources and Course,	9
Communication of the Nile and Niger—Cataracts of the Nile,	9
Valley of the Nile—Parallel Line of Mountains,	9
Level—Basin of Faïoom—Plains of the Delta,	9
Mouths,	10
Depth and Rapidity—Navigation—Inundations of the Nile,	10

Mud of the Nile,	11
Qualities of the Nile water—Nature of the Rocks—Specimens of Obelisks,	11
Mountains of Cosseir,	11
Mountains of Suez—Saline Depositions—Mountains of Upper Egypt—Valley of the Natron Lakes,	12
Valley of the Dry River—Changes of the Soil,	12
Lake Mœris—Maritime Lakes,	12
Lake Menzaleh,	13
Canals,	13
Climate—Varied Aspect—Causes of the Scarcity of Rain,	13
Temperature—The Mirage,	14
Progress of the Winds—North Winds,	14
The South Winds, or Khamseen—Endemic Diseases—Ophthalmia,	14
Vegetables—Crops of the Inundated Lands—Corn Crops,	14
Culture of Dry Lands,	15
Artificial Irrigations,	15
Fruit Trees—Vines,	15
The Persea—The Lotus, different meanings of this term,	15, 16
Forest Trees—Table of the succession of Cultures through the year,	16
Animals—Crocodile—Hippopotamus,	16
Fish—Birds,	17

BOOK LXI.

EGYPT.

PART II.

Inquiries relative to the Isthmus of Suez, and the extremity of the Arabian Gulf.

Questions proposed,	18
Level and Inclinations of the Surface,	18
Consequences of its Level—Hypothesis on the waters of the Mediterranean,	18
Position of Herœopolis—Herœopolis is not Pithom,	19
Herœopolis is identical with Hero—Distances assigned in the Itineraries,	19
Objections,	19
Mythological Traditions—Conclusions,	19, 20
The Herœopolis of Ptolemy—Position of Arsinoe,	20

Position of Clysmā,	20
Cause of Ptolemy's error—Conclusion,	20
Ancient Measures of the breadth of the Isthmus—Examination of a passage in Moses,	20, 21
Heröopolis is not identical with Baal-Zephon—Canal of the two Seas,	21
Antiquity of this Work,	21, 22

BOOK LXII.

EGYPT.

PART III.

Topographical and Political Details.

Historical Revolutions,	23
Mamelukes—French,	23
Ancient and Modern Divisions,	23
Towns of Lower Egypt—Alexandria—Harbours,	24
The Ancient City—Column called Pompey's Pillar,	24
Rosetta,	24
Northern Coasts—Damiëta,	24, 25
Towns of the Eastern Delta—Point of the ancient Delta,	25
Interior of the Delta—Places of Pilgrimage,	25
Towns on the West of the Delta—Grand Cairo,	25
Origin of Cairo—Manners and Amusements,	25, 26
Town of Djizeh, and the Great Pyramids,	26
Belzoni's Operations on the Second Pyramid,	26, 27
The Great Sphinx—Pyramids of Sakhara,	27
Middle Egypt—Faioom—Lake Mœris,	27, 28
Peculiar Land-tax—The Labyrinth,	28
Caverns of the Thebaid,	28
Ancient Paintings—Akmin—Meshieh—Djirdjeh,	28
Denderah—Its Temples—The Zodiacs,	29
Remains of Ancient Customs—Keft—Ruins of Thebes,	29
Temples,	29, 30
Tombs and Mummy-Pits—Description of the Mummies,	30
Evidences of the State of the Arts among the Ancient Egyptians—Linen Manufactures,	30
Drawing and Painting—Architecture—The Arabs of Goornoo,	30
Researches of Belzoni—Erment, or Hermonthis,	30, 31
Caverns of Elethya—Ruins of Syene—Observations on the Change of the Obliquity of the Ecliptic,	31
Appearance of Syene,	31
Islands of Elephantine and Philæ—The names of these Islands,	31, 32
Shores of the Red Sea—Cosseir—Desert of the Thebaid,	32
Monasteries of St. Anthony and St. Paul—City of Suez—The Ancient Berenice,	32
Emerald Mountains—Arab Tribes—The Oâses,	32, 33
The Great Oâsis—Temple of El-Kargeh,	33
Necropolis—Western Oâsis,	33
Temple of Daer-al-Hadjar—Indigo Manufacture,	33
Little Oâsis—Oâses in the Eastern Desert,	34
Government of Egypt—Land-tenures,	34
Revenues—Population—Recent Revolutions,	34
Manners and Customs of the Mamelukes,	34, 35
Manners and Customs of the Copts,	35
Physical Constitution—Coptic Language,	35, 36
Religion,	36
Name of Copts—The Arabs,	36
Fellahs—Turks—Greeks—Jews—Contrast of Manners,	36
Hereditary Parties—Art of Swimming,	36
Carrying Pigeons—Enchanters of Serpents—Pottery,	37
Antiquity of this Art—Weaving—Rose-water—Abyssinian Caravans,	37
Commerce of Cosseir—Caravans from Darfoor—Other Caravans,	37, 38
TABLE of Geographical Positions, astronomically observed by M. Nouet,	38

BOOK LXIII.

NUBIA, ABYSSINIA, AND THE COASTS OF BEJA AND HABESH.

Region of the Upper Nile,	39
NUBIA—Its boundaries,	39
Climate—Deserts,	39
Vegetables—Animals—Minerals,	39
Divisions—Turkish Nubia—Sketches of Topography and Antiquities—Deir—Ibrim—Hogos,	40
Ebsambool—Barabras,	40
The Ababdeh—State of Dongola,	40
Kingdom of Sennaar—Inhabitants—The Nubians,	41
The Shillooks—City of Sennaar,	41
Government—On the Name of Fungi,	41
Southern Provinces—ABYSSINIA,	41, 42
Situation and Extent—Different Names,	42
Mountains—Rivers,	42
Temperature—Seasons—Mineral Productions,	42
Plants—Alimentary Plants,	43
Aromatic Trees—Animals—Two Horned Rhinoceros,	43
The Giraffe—The Zebra,	43
Insects—Uncertainty of the Number of Provinces—Kingdom of Tigré—City of Axum,	43, 44
Inscription—Dixan,	44
Temple of Abuhasubba—Monastery of Fremona—Provinces of Wogara, Sireh, &c.	44
Kingdom of Dembea—City of Gondar—Kingdom of Gojam—Begamder,	44
Amhara—State Prison—Xoa—Damot,	45
Dismembered Provinces—Inhabitants—The Abyssinians, or Agazians—Languages,	45
Historical Epochs,	45, 46
Present State—Religion,	46
Civil and Political State,	46
The Army—Houses—Abyssinian Feasts,	46, 47
Savage Nations—The Gallas—Their Religion, Laws, and Customs,	47
The Shangallas—The Agows,	47
The Gafats—The Gurags—The Falasja, or Abyssinian Jews,	47
TROGLODYTICA, or the Coast of HABESH—Minerals—Want of Water,	48
Vegetables—Animals—The Troglodytes—Their Mode of Living—Language, Manners, and Customs,	48
Fishermen,	48
Topography—Emerald Mines—Isle of Topazes—The Country of Beja, or Bodsha,	48, 49
Port of Aidab—Town and District of Suakem,	49
Island of Dabalac—Masuah—Country of Samhar,	49, 50
Territory of Bahar-Nagash—Dankali,	50

BOOK LXIV.

THE REGION OF MOUNT ATLAS OR BARBARY, AND THE GREAT DESERT OR ZAHARA.

PART I.

General Features of these Countries.

Region of the Atlas—Mount Atlas Described,	51
Great and Small Chains—Extension of Atlas,	51
Elevation—Nature of the Rocks,	51, 52
Hypothesis of M. Ideler, on the Atlas of the Ancients—The Atlas of the Phenicians,	52
The Atlas of Homer—The Atlas of Geographers,	52
Objections to this Hypothesis,	52
Passage in Maximus Tyrius—Description of the Region of Mount Atlas,	52, 53

Vegetation—Vegetation of the Coasts and the Table Lands, 53
 The Forests—Flowers, 53
 Alimentary Plants—Animal Kingdom—Camel of the Desert, 53
 Degrees of Swiftmess—Other Domestic Animals, 53, 54
 Wild Animals—Discussion on the Bears of Africa, 54
 Ostrich Hunting—Inhabitants—The Moors, 54
 Moorish Fanaticism, 55
 The Arabs, 55
 The Berbers, 55
 The Marabouts, 55
 Description of a Plague, 56

BOOK LXV.

THE BARBARY STATES, AND THE GREAT DESERT OR ZAHARA.

PART II.

Detailed Descriptions.

The Desert or Kingdom of Barca, 57
 Ruins of Cyrene, 57
 Oâsis of Siwah, 57
 The Oâsis of Audjelah—The Desert of Haroodjeh—Fabulous Town—Fezzan, 57, 58
 Climate—Soil and Productions, 58
 Government—Inhabitants—Tibbos, 58, 59
 TRIPOLI—Climate and Productions—Towns—Antiquity of Tripoli, 59
 Different Towns—Government—Navy, 59
 KINGDOM OF TUNIS—Government, 59
 Climate—Productions—City of Tunis, 60
 Ruins of Carthage—State of Gadames, 60
 STATE OF ALGIERS—Soil and Productions, 60
 Boundaries—Divisions—City of Algiers—Towns of the Province of Mascara, 60
 Of Constantina, 61
 Inhabitants, 61
 EMPIRE OF MOROCCO, 61
 The Almoravides, 61, 62
 Boundaries—Productions—Rivers, 62
 Towns of the Kingdom of Fez, 62
 Towns of the Kingdom of Morocco—Towns to the South of the Atlas—Population of Morocco, 62, 63
 Government—Administration—Civil Condition, 63
 Religions—Situation of the Jews, 63
 Pride of the Moors—Singular Points of Etiquette, 64
 Revenues—Export Trade—Imports, 64
 Biledulgerid—ZAHARA, 64
 Soil and Minerals—Climate—Vegetation—Animals, 64
 The Coast—Tribes to the North of Cape Blanco, 65
 Fate of Captives—Tribes to the South of Cape Blanco—The Trarsas, 65
 Manners of the Moors, 65, 66
 The Caravan of Morocco—Dangers Encountered, 66
 Route of this Caravan, 66
 Mode of Living of the Travellers—Deserts and Oâses of the Centre, 66
 Origin of the Desert, 66, 67

BOOK LXVI.

SENEGAMBIA AND GUINEA.

Climate and Temperature of Senegambia, 68
 Winds—Temperature of Guinea—Winds—Hurricanes, 68
 The Harmattan—Mountains, 68
 Rivers—The Senegal—The Gambia, 69

Vegetation—Forest Trees, 69
 Aromatic Plants, 69
 Gums—Alimentary Plants, 70
 Guinea Grass—Animals, 70
 Monkeys, 70
 Domestic Animals—Insects, 70, 71
 Termites—Cowries—Minerals—Gold Mines, 71
 Other Minerals—French Settlements, 71
 Kingdom of Owah—The Foulahs—Extension of this People, 71, 72
 Serracolets—Kingdom of Galam, 72
 The Mandingos—The Bambookans, 72
 Jallonkadoo—The Yalofs, 72
 Emperor of the Yalofs—Detached States—Kingdom of Sallum—Palace of Kahan, 73
 The Serreres—Petty States—The Feloops, 73
 The Soosoos—Laws and Manners, 73
 The Papels, 73, 74
 Portuguese Settlements—Bissajos Islands, 74
 Bulam—Manners of the People—Rio Grande—The Biafars, 74
 The Naloes—Sierra Leone—Philanthropic Settlement, 74, 75
 Slave Trade—Liberated Slaves—Commerce, 75
 Division of Guinea into Coasts—Productions of the Grain Coast, 75, 76
 Quoya and Hondo Countries, &c.—Manners, 76
 Ivory Coast—The Quaquas—The Gold Coast—European Settlements, 76
 Accounts of the Interior—Cultivation of the Soil, 76, 77
 Diversities of Soil—Inland Nations—The Ashantees, 77
 Slave Coast—Kingdom of Dahomey, 77
 Barbarous Customs—The Eyees, 77, 78
 Kingdom of Benin, 78
 Laws—Customs—Festivals—Kingdoms of Waree, Calabar, &c.—River of Cameroons, 78
 River of Gaboon—The Calbongos, the Biafras, and the Ibbos, 78

BOOK LXVII.

THE RIVER NIGER AND NIGRITIA.

Discussions on the Niger—Data of Ptolemy, 79
 Arabian data, 79
 Hypothesis of M. Reichard—First Argument, 79
 Mass of Water of the Niger, 80
 Second Argument, 80
 Third Argument, 80
 Subordinate Arguments—Observations on the Name of the Ooilil Island, 80, 81
 Hypothesis of the Identity of the Niger and Nile—Navigation from Tombuctoo to Cairo, 81
 Objections, 81
 Probable Results, 81, 82
 Particulars respecting Nigritia—Journey of Mungo Park—Country of Bambarra—Country of Ludamar, 82
 Cities of Jinne and Tombuctoo—Sea of Soodan, 82
 White People—Jews of Melly—The Mallays—Accounts of Tombuctoo, 82
 Government—Library—Climate, 83
 Productions, Animal and Vegetable—Gold mines, 83
 Country of Tocroor and Gana—States of Houssa and Kashna, 83
 Productions of Kashna—Eastern Nigritia—Darfoor, 83
 Nature of the Country—Climate—Vegetables—Animals, 84
 Inhabitants—Manners—Customs—Language—Religion—Towns, 84
 Shillook Country—Mountains—Productions—Towns, 84, 85
 Dar-Koollah—Mobba or Bergoo—Contradictory Accounts of the Rivers, 85
 Productions—Inhabitants, 85
 Baghirmah—Historical Anecdote—Remarks on the City of Karna—Christian Tribes, 85
 Wangara—Empire of Bornoo—Nature of the Country, 86
 Rivers—Minerals—Vegetable Kingdom, 86
 Animals—Towns, 86
 Government—Religion, 87
 Europeans at Bornoo—Trade, 87

BOOK LXVIII.**ON THE INHABITANTS OF NIGRITIA, SENEGAMBIA,
AND GUINEA.**

Food and Drink,	88
Dwellings—Town—Palaces,	88
Want of Industry—Manufactures,	88
Amusements—Dancing—Play—Physical Constitution—Dis- eases—Virility,	88, 89
Pointed Teeth—Incisions in the Skin—Circumcision,	89
Superstition—Worship of Serpents,	89
Funerals—Government,	89, 90
Civil Laws—Lawyers—Non-existence of great Empires,	90
Barbarous Pride of the Princes—Portrait of Opocoo,	90
Burial of a King,	90
SLAVERY—Slave Trade,	90, 91
Mode of Procuring Slaves,	91
Middle Passage,	91
Numbers that Perish—Situation in the West Indies—Com- mencement of the Traffic,	91
Exertions of the Quakers,	92
Abolition—United States—Treaty with Spain,	92
Treaty with the Netherlands—Treaty with Portugal,	92
Courts of Mixed Commission—French Slave Trade—Pres- ent State of the Slave Trade,	92
Slave and Free Labour,	93
Present State of Colonial Bondage,	93
Disposition of the Negroes for Civilization,	93
Negro Character,	93, 94

BOOK LXIX.**AFRICA.***Continuation of the Description of Africa.—General and Particular
Description of CONGO or SOUTHERN GUINEA, and of some Ad-
joining States.*

Diversity of Names,	95
Climate and Temperature,	95
Seasons—Mountains—Rivers,	95, 96
The Coanza—The Zaire,	96
Hypothesis respecting the Zaire—Mineral Productions, Metals,	96, 97
Vegetables—Alimentary Plants,	97
Aromatics—Fruit Trees—Indigenous Trees,	97
Valuable Woods—Palms,	98
The Baobab,	98
Animals—Fishes,	98
Reptiles—Different Kinds of Serpents,	98, 99
Insects,	99
Birds,	99
Quadrupeds,	99
Carnivorous Animals,	100
Monkeys—Account of a Chimpanzee,	100
Chorographic Description,	100
Kingdom of Loango,	101
Black Jews—Kingdom of Cacongo,	101
Kingdom of Cabinda or En-Goy—Different Tribes,	101
Kingdom of Congo,	101, 102
Produce—Government—City of San Salvador,	102
Province of Sogno—Province of Bamba—Province of Pemba,	102
Province of Batta—Province of Panga—Province of Sandi— Various Provinces,	102, 103
Kingdom of Angola—Physical and Political State,	103
Provinces—City of Loanda—San-Paulo,	103
Kingdom of Benguela—Provinces,	103
Inhabitants of Bamba—Kingdom of Matamba,	103, 104
General Character of the Natives of Congo—Their Servility,	104
Polygamy—Singular Customs—Husbands,	104
The King's Court—Prince who works Miracles,	105
Elective Succession—Great Officers of State,	105

Classes of Inhabitants—Administration of Justice,	105
Laws and Customs,	106
Singular Ordeal—Language of Congo,	106
Arms—Religion—Superstitions,	106, 107
Priests,	107
Raising the Dead—Christian Missions,	107
French Missionaries—Contradictory Accounts,	108
Reflections,	108
Neighbouring Tribes—The Bake-Bake—Country of Anziko— Anthropophagy,	108, 109
Manners of the Anziquas—Towns and Provinces,	109
Mokko,	109

BOOK LXX.**AFRICA.***Continuation of the Description of Africa—The CAPE, and the
COUNTRY of the HOTTENTOTS.*

Coast of the Cimbebas,	110
Inhabitants—Manners of the Makosses—Physical Region of the Cape,	110
Rivers,	110, 111
Description of the Karroos,	111
Pastoral Life of the Colonists,	111
Composition of the Mountains,	111, 112
Table Mountain,	112
Minerals—Temperature—Winds and Seasons,	112
Vegetable Beauties of the Cape—Groves and Forests,	112, 113
Oaks—Defects of Vegetation,	113
Culture—Vineyards,	113
Fruit Trees—Different Attempts at Culture,	114
Animals,	114
Oxen of the Cape—Birds,	114
The Hottentots,	115
Mongolian Words among the Hottentots—Tribes of the Hot- tentots—The Koranas,	115
Manners and Customs of the Hottentots,	115
The Boschmen,	115, 116
Extreme Barbarity of this Tribe,	116
Language of the Hottentots—Peculiar motion of the Tongue,	116, 117
Colony of the Cape—Colonists,	117
Manners of the Colonists—People of Colour,	117
Cape Town,	117
Origin of the City—Education,	118
Women—Religion,	118
Mahometanism—Importance of the Cape,	118
Produce—Exports—Internal Commerce,	119
Government,	119
Crimes—Orphan Chamber,	119
Bank Money,	119, 120

BOOK LXXI.**AFRICA.***Continuation of the Description of Africa.—South-east Coast, or
CAFFRARIA, MONOMOTAPA and MOZAMBIQUE.*

General Idea of the Caffre Nations—Of the names Caffre and Caffraria,	121
Mountains and Rivers,	121
Of the Mountains of Lupata—The Natal Coast,	121
Of the existence of the Unicorn,	122
Tribe of the Koussas—Nature of the country,	122, 123
Temperature—Physical Character of the Koussas—Their Women,	123

Their Food—Their Taste for Travelling—Their Clothing, . . . 123
 Pastoral Taste—Public Education, . . . 123
 Circumcision—Women perform the Office of Herald—Arms
 of the Koussas, . . . 124
 Manner of Fighting—Laws of War, . . . 124
 Lion Hunt—Dancing, Music—Hereditary Chiefs, . . . 124
 Arithmetic—Chronology, . . . 125
 The Tambookas—The Hamboonas—De Lagoa Bay, . . . 125
 The Betjouanas—Appearance of the Country—Names of the
 Tribes, . . . 125
 Tribe of the Maquinis, . . . 125
 Manners of the Betjouanas—Their Physical Nature—Lan-
 guage, . . . 126
 Food—Dress, . . . 126
 Houses—Utensils and Instruments, . . . 126
 Morality and Religion—Christian Missions, . . . 127
 Particulars respecting Polygamy—The Barroloos, . . . 127
 Connexion with the Great Desert and Congo, . . . 127
 Mampoor—Inhambane, . . . 128
 The Kingdom of Sofala, or Botonga—Empire of Monomotapa, . . . 128
 Productions—Etymology of the Name, . . . 128
 Monuments—Provinces and Cities, . . . 129
 Passage across the Continent of Southern Africa—Coast of
 Mozambique, . . . 129
 City of the same name—The Macouas and the Country of
 Vakvak, . . . 129
 The Coast of Querimbe, . . . 130

BOOK LXXII.

AFRICA.

Continuation of the Description of Africa.—Eastern Coast, or ZANGUEBAR and AJAN. Remarks on the Interior of Southern Africa.

Zanguebar, according to the Arabians, . . . 131
 European accounts—Quiloa, . . . 131
 Island of Monfia—Island of Zanzibar, . . . 131
 Island of Pemba—Doubts and Questions, . . . 132
 Delta of the River Quilimancy—The Mosegueyos—The Ma-
 racatas—Kingdom of Magadoxo, . . . 132
 City of Magadoxo—Coast of Ajan, . . . 132
 Kingdom of Adel—Varieties of Sheep, . . . 133
 Aromatic Vegetables, . . . 133
 General View of the Interior—Caravans which go thither, . . . 133
 Manners of the Jagas, . . . 133, 134
 Heroes and Heroines—The Bororos—Mono-Emugi, . . . 134
 Gingiro—River Zebee, . . . 134
 Singular Laws and Customs, . . . 134
 Laughable Etiquette—Royal Funeral, . . . 135

BOOK LXXIII.

AFRICA.

Continuation of the Description of Africa.—The Eastern African Islands—SOCOTORA, MADAGASCAR, BOURBON, ISLE OF FRANCE.

SOCOTORA—Productions—Origin of the Inhabitants, . . . 136
 Almirante Islands, . . . 136
 The Seychelle Islands—Mahé—Isle of Palms—Maldivé Nut,
 or *Coco de mer*, . . . 136
 Small Islands—Comora Isles—Appearance of Hinzuan, . . . 137
 The Great Comora—Climate—Productions, . . . 137
 Inhabitants—Their Origin—Language, Character, and Man-
 ners, . . . 137
 Houses—Religion—Political State, . . . 138
 MADAGASCAR—Its Discovery—Extent, . . . 138
 Mountains—Rivers—Bays and Roads, . . . 138
 Importance of this Island—Minerals—Vegetables, . . . 138, 139

Aromatics—Valuable Woods, . . . 139
 Animals—Remarks on Oxen with moveable Horns, . . . 139
 Chorography—The Antavarts, . . . 140
 The Bestimessaras—The Betanimeres, . . . 140
 The Antaximes—The Antambasses—The Valley of Am-
 boule—The Antanosses, &c.—The Ambanivoules, . . . 140
 The Antsianakes—The Bezonsons, . . . 140
 The Antancayes—The Country of Ancove, . . . 140
 The Hovas, or Ambolans—Their Proficiency in the Arts, . . . 141
 The Andrantsayes, . . . 141
 Southern Coast—The Country of the Buques—Different
 Nations, . . . 141
 The Seclaves—City of Mouzangaye—The Madecasses—Ara-
 bian Colonies, . . . 141, 142
 Two Ancient Races—Madecasse Language, . . . 142
 Political State—Castes—Priests, and Sorcerers—Circumcis-
 ion, . . . 142, 143
 Ordeal by Poison, . . . 142
 Singular Imprecation—Alliance of Blood—The Mascarenha
 Isles, . . . 143
 Isle of Bourbon—Mountains—Volcano—General Appearance, . . . 143
 St. Denis—Different Cultures, . . . 144
 Produce in Corn—Errors of Administration—Revenue, . . . 144
 Population—Isle of France—Cultivation, . . . 144
 Mountains—Pitons—Cities, . . . 144, 145
 Picturesque Beauties—Population, . . . 145
 Island of Rodriguez—Researches of M. Buache, on the Island
 of Juan de Lisboa—Ancient Charts, . . . 145
 The Island is Condemned—Recent Assurances of its Exist-
 ence, . . . 145
 Voyage of M. Boynot—Discovery of M. Sornin, . . . 146
 New Official Researches, . . . 146
 Hypothesis of M. Epidariste Collin, . . . 146
 Islands of Saint Paul and Amsterdam—Physical Description
 —Confusion on the Subject of these Islands, . . . 147
 Kerguelen's Land—Marion and Prince Edward Isles—Dis-
 cussion on Dina and Marseveen, . . . 147
 Hypothesis of M. Buache, . . . 147
 Observations on this Hypothesis, . . . 148

BOOK LXXIV.

AFRICA.

Continuation of the Description of Africa.—The Western African Islands.

African Ocean—Circumcision Island, . . . 149
 Tristan d'Acunha Islands—Island of Saint Helena—Physical
 Details, . . . 149
 Town—Historical Details—Ascension Island, . . . 149, 150
 Islands in the Gulf of Guinea—Fernando Po—Prince's Island, . . . 150
 Island of St. Thomas—Climate—Productions, . . . 150
 Political and Moral State—Annabona Island, . . . 150
 Island of St. Matthew—Sea of Thunder—Cape Verd Islands
 —San-Iago, . . . 150, 151
 Productions—Mountains—Towns, . . . 151
 Mayo, Fuego, &c.—St. Vincent, St. Nicholas, &c.—The Sea
 of Sedge, or Mar de Sargasso, . . . 151
 Canary Islands—Lancerota, . . . 151
 Ancient Inhabitants—Forteventura—Great Canary, . . . 151, 152
 Teneriffe—The Peak—Its Height, . . . 152
 Productions of the Island—The Dragon Tree of Orotava, . . . 152
 Towns of Teneriffe—Gomera Island—Palma Island, . . . 152, 153
 Ferro Island—Holy Tree, . . . 153
 Population of the Canaries—Spanish Islanders—The Guan-
 ches, . . . 153
 Manners of this People, . . . 153
 Mummies of the Guanches, . . . 153, 154
 Guanche Language—Saint Brandon Island, . . . 154
 Island of Madeira—Mountains—Climate and Seasons, . . . 154, 155
 Trees—Sugar Canes—Vineyards, . . . 155
 Different Productions—Population, . . . 155

Town of Funchal—Revenue,	155
Island of Porto Santo—The Azores—General Appearance— Nature of the Soil and Climate,	155, 156
Productions—Population—Exportation,	156
Island of Saint Michael—The Valley of Furnas,	156
Culture and Productions—Towns—Temporary Volcanic Islet,	156, 157
Its Appearance in 1638,	157
Remarks on the Date of this Phenomenon—Appearance in 1720,	157
Appearance in 1811,	157
Saint Mary Island—Terceira Island—Soil and Productions— Inhabitants,	158
St. George Island—Graciosa Island—Fayal Island—Valley called the Caldron,	158
Climate and Productions—Towns—Pico Island—Volcano, or Peak of the Azores,	158
Productions—Origin of the Inhabitants,	158, 159
Flores Island—Corvo Island,	159

TABLE of Geographical Positions of Africa, &c.	160—162
--	---------

BOOK LXXV.

DESCRIPTION OF AMERICA.

General Reflections—Origin of the Americans.

Discovery of America—Configuration of America,	163
Points of resemblance common to both Continents,	163
On the term <i>New Continent</i> ,	163
Level of the Country—Elevated and Low Regions,	163
Savannas, Llanos, and Pampas,	163

RIVERS—Their Length and Course—Remarks on their Basins,	164
Great number of Lakes,	164

CLIMATES—Two general Climates—Causes of the Low Tem- perature,	164, 165
Mineralogical Riches,	165

ANIMALS—Vegetable Productions—Peculiarity regarding its Animals,	165
Origin of its Animals—Analogies and Differences—Fossil Animals,	165, 166
Physical characters of the Natives,	166
Anomalies,	166
Colours of the Skin,	167
Exceptions,	167
Beard of the Americans,	167
The Americans are all of the same Nation,	167

LANGUAGES—Researches respecting them—Analogies of the Asiatic and American words,	168
Result of these Researches,	168, 169
Extent and analogy of the different idioms:—	
1. In South America,	169
2. In North America,	169
3. In the Arctic Regions,	169
Cause of this multiplicity of Idioms,	169, 170
Peculiar genius of the American Languages—General Affin- ity of the Conjugations—Other Peculiarities in the Conju- gations,	170
Ancient American Monuments,	170
Manners and Customs,	170
Analogy of their Religious Systems,	171
Known Migrations of the American People,	171
Hypotheses Respecting the Place of their Departure,	171
Various Traditions,	171
Concluding Result,	172
Hypotheses respecting the origin of the Americans,	172
Hebrew Hypothesis,	172

Egyptian Hypothesis,	172
Hypothesis of Grotius,	172
Asiatic Hypothesis,	172
Mixed Hypothesis,	172, 173

TABLE of the Geographical connexion of the American and <i>Asiatic Languages</i> ,	173—176
---	---------

BOOK LXXVI.

AMERICA.

Description of America—Researches concerning the Navigation of the Icy Sea of the North—North-west Coast of America.

Doubts detailed,	177
Hypothesis of a Polar Continent,	177
Pretended voyage through the Polar Seas,	177, 178
Geographical Contradictions,	178
Physical Contradictions,	178
Origin of these Fables,	178
Navigation of the Frozen Seas—Fixed Ice—Moveable Ice,	179
Obstacles to a Journey by Land,	179
North-West Region—Aleutian Islands,	179
Civil and Political Condition—Manners and Customs detail- ed,	179, 180
Physical Description—Volcanoes, &c.	180
Island of Kodiak,	180
Physical Account of Russian America,	180
Indigenous Tribes—Mount St. Elias,	180, 181
New Archangel—The Kalougians,	181
Port des Français—Commerce of the Russian Company,	181
Continuation of the North-West Region,	181
The Rocky Mountains,	181
Maritime Chain of the North-West—Divisions according to Vancouver,	181, 182
New Georgia,	182
Mountains—Productions—Unknown Bird,	182
Interior of the Country,	182
Pretended Volcanoes—Details concerning the Columbia,	182
Gigantic Firs,	183
Nootka Island,	183
American Establishment—New Hanover,	183
New Cornwall—George III. and Admiralty Islands,	183

INDIGENOUS TRIBES—The Wakash—Their War Dress, 183, 184 Their Fishing Apparatus—Tribes of the Interior of New Georgia—Flattened Heads,	184
Tribes of New Hanover—Sculpture of the Salmon Indians,	184
The Sloua-Cuss Indians—The Atnahs, &c.—Tchinkitane In- dians,	184, 185
Their resemblance to the Aztecs,	185

BOOK LXXVII.

THE DESCRIPTION OF AMERICA CONTINUED.

Regions of the North and North-east; or the country on Mac- kenzie's River, and the country round Hudson's Bay, Labrador, Greenland, Iceland, and Spitzbergen.

General View,	186
Slave Lake,	186
RIVERS—Mackenzie's River—Hearne's River—Rivers of Hudson's Bay,	186
Winipeg or Bourbon Lake,	186
Rigour of the Climate—Atmospherical Phenomena,	186
Barrenness of the Soil—Fisheries,	187
Quadrupeds—Trees and other Vegetables,	187

The Hudson's Bay and North West Companies—Lord Selkirk's Colony, 187
 Names given to these Countries, 187
 The Esquimaux—The Chipiwans—Their means of Subsistence, 188
 Their Superstitions—Northern Indians, 188
 Details concerning their Manners—The Knistenaux, 189
 LABRADOR—Climate and Soil—Vegetables and Animals, 189
 The Labrador Felspar—Establishments of the Moravian Brethren—Labrador Tribes, 190
 Icy Archipelago, 190
 Country round Baffin's Bay, 190, 191

GREENLAND—Remarks concerning Old Greenland—Modern Establishments, 191
 The Soil and Country—Icy Peak—Rocks and Minerals, 191
 Climate—Frost—Smoke—Vegetation—Animals—Whales—The Seal, 192
 Exportations, 192
 The Indigenous Greenlanders—Their Language—Their True Name, 192
 Connexion with the Esquimaux—Their Canoes, 192
 Explanation of a Passage of Cornelius Nepos, 193
 Character of the Greenlanders—Christian Missions, 193
 Superstitions—Priests or Sorcerers, 193

ICELAND—Its Geographical Situation, 193
 Rocks—Mountains—Lava—Volcanoes, 194
 Volcanic Islet—Hot Springs, 194
 The Geyser—The Strok, 194
 Mineral Springs—Surturbrand—Minerals—Hills of Sulphur, 194, 195
 Air and Climate—Habitual Severity of the Climate, 195
 Vegetation—Ancient Forests—Floating Wood—Domestic Animals—The Rein-Deer, 195
 Foxes—Falcons—Fish, 195
 Provinces and Towns, 196
 Commerce—The Icelanders—Arts and Trades, 196
 Social Intercourse—Dress, 196
 Intelligence and Literature, 196
 Lands to the North of Iceland—Island of Jan Mayen, 196

SPITZBERGEN—Description of it, 196, 197
 Whales—The Whale Fishery—The Horn of the Narhval, 197
 Spermaceti, 197
 Remarks concerning the Floating Wood, 198
 Theory of the origin of this Wood, 198

BOOK LXXVIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Canada, Nova Scotia, and Newfoundland.

CANADA—Lake Superior—Lake Huron—Lake Erie, 199
 Niagara River—Lake Ontario—River St. Lawrence—Rivers and Cascades, 199
 Soil and Climate—Agriculture—Plants—Forest Trees—Maple Sugar—Animals—Metals—Topographical Divisions—Towns, 200, 201
 QUEBEC—Montreal, 201, 202
 Towns of Upper Canada, 202
 Peninsula of Upper Canada, 203
 Population, 203
 French inhabitants—Character of the French settlers, 203
 Appearance—Amusements—Society, 203, 204
 Education—Laws and Government—Revenue and Expenses, 204
 Exports and imports—Military importance, 205
 SAVAGE TRIBES—The Hurons—The Iroquois—The Agniers, 205
 Different Tribes—Gaspé, its ancient inhabitants, 205
 New Brunswick—Productions—Commerce—Towns—Acadia or Nova Scotia, 206

Climate—Trees, 206
 Towns and Harbours—Islands—Cape Breton, 206
 Louisbourg—Island of St. John, 207
 Island of Anticosti—Terra Nova, or Newfoundland, 207
 Productions—Climate—Fishes, 207
 Newfoundland Dog—Population—Towns—The Bermudas, 207
 Soil and Productions—Towns—Discovery of the Bermudas, 207, 208

COMMERCIAL TABLES.—*Extracted from the Parliamentary Reports. An account of the number of Ships and Men employed in the Trade of the British Colonies in North America, from the year 1814 to the year 1820, 209*
Real value of British and Irish Produce and Manufactures exported from Great Britain, as ascertained from the declarations of the exporters, 209
British and Irish Produce and Manufactures, 209

BOOK LXXIX.

THE DESCRIPTION OF AMERICA CONTINUED.

United States—Nature of the Country—Mountains, Rivers, Animals, Plants, &c.

Aspect of the Country—Historical Sketch, 210
 Extent and Limits, 210
 Indians, 211
 Mountains, 211
 Geology, 211, 212
 Lakes and Swamps, 212

RIVERS—Mississippi, 212
 Eastern Rivers, 213
 Climate, 213
 Yellow Fever, 213
 Vegetable Kingdom, 213, 214
 Flora of Southern States, 214
 Flora of the Calcareous Region, 215
 Public Lands, 215
 Agriculture, 216
 Animals, 216
 Minerals, 216

BOOK LXXX.

THE DESCRIPTION OF AMERICA CONTINUED.

Description of the United States continued—Topography and Statistics of the several States.

Maine—New Hampshire, 217
 Vermont, 217
 Massachusetts, 218
 Rhode Island, 218
 Connecticut, 218
 New York, 219
 New Jersey—Pennsylvania, 220
 Philadelphia Prison, 220, 221
 Manners in the Middle States, 221
 Delaware—Maryland, 222
 Virginia, 222
 Federal District, 223
 North Carolina—South Carolina, 223, 224
 Georgia—Alabama—Mississippi, 224
 Louisiana, 224, 225
 Tennessee—Kentucky, 225
 Ohio, 226
 Indiana—Illinois—Missouri, 226

TERRITORIES—Florida,	226
Michigan—Arkansas—North-West Territory,	227
Missouri Territory,	227
Rocky Mountains,	227
Western Territory,	227

BOOK LXXXI.

THE DESCRIPTION OF AMERICA CONTINUED.

United States continued—The Aborigines—Manners and Character of the various Tribes.

Persons, Dress, and Ornaments—Houses,	230
Government,	230
Women,	231
Superstitions,	231
Their Wars,	231
Manners,	232
Numbers,	232, 233

BOOK LXXXII.

THE DESCRIPTION OF AMERICA CONTINUED.

United States continued—Manufactures, Commerce, Government, Religion, Manners, and Literature.

Manufactures,	234
Commerce—Canals,	234
Banks—Money,	234
Government,	235
Two kinds of Government,	235
The European—The American,	235
President—Senate,	235, 236
House of Representatives,	236
Forms and Composition of Congress,	236
Pay of Public Officers,	236, 237
Federal Judiciary,	237
State Governments—Representatives—Senators,	237
Amending Constitutions,	237, 238
Judges,	238
Elections,	238
Revenue—Debt,	239
Army—Militia—Navy,	240
Religion,	240
Sects,	240, 241
Colleges—Schools,	241
Literature,	241
Newspapers,	242

TABLE of the Population of the United States, in 1790, 1800, 1810, and 1820, according to the Returns, 242

TABLE showing the Extent, Population, and Representation of each State, and the Proportion of its Inhabitants engaged respectively in Agriculture, Manufactures, and Commerce, according to the census of 1820, 243

POPULATION of the United States, according to the census of 1820, 243

TABLE of the Amount of the Valuations of Lands, Lots, and Dwelling-Houses, and of Slaves, in the several States, made under the Acts of Congress, of the 22d July 1813 and 9th January 1815, as returned and revised by the Board of Principal Assessors, with the corresponding Valuations in 1799, 244

TABLE of Manufactures of the United States, according to returns made to the Marshals in 1810, 244

Cotton of Domestic Growth Exported from 1805 to 1817, 244

TABLE of Exports of certain Classes of Domestic Produce, at three different periods 244

TABLE of the Tonnage of each State, and of the whole Union, in 1821,	244
TABLE of Imports of the United States for 1821,	245
TABLE of Exports of the United States for 1821,	245
TABLE of the Exports of the United States from 1800 to 1821,	245
TABLE of the Post-Office Establishment of the United States from 1790 to 1821,	246
TABLE of the Public Debt, Revenue, and Expenditure of the United States, from 1791 to 1822,	246

BOOK LXXXIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Mexico, comprising New Mexico and the Captain-Generalship of Guatemala—General Physical Description.

General Sketch of Spanish America,	247
Great Political Divisions,	247
Denominations of Mexico,	247
Aztec or Mexican Kingdom—Anahuac,	247

NEW SPAIN—Dimensions—Limits,	248
Division into Intendancies, Provinces and Kingdoms,	248
On the Denomination of Internal Provinces,	249
Comparison of the Population,	249
Distribution by Climates,	249
Mountains,	250
Mexican Plateau—Levels of the Plateau—Eastern and Western Declivity,	250
Direction of the Cordillera—Volcanoes of Mexico,	250
Continuation of the Cordillera—Sierra de Mimbres,	250, 251
Granitic Rocks—Porphyritic Rocks,	251
Singular Shape of these Rocks,	251
Detailed Account of the Volcanoes,	251
Mines,	252
Particular advantage of the Mexican Mines,	252
Rivers—Deficiency of Water—Lakes,	252
The Lake of Nicaragua,	252
Communication between the two Oceans,	252
Sea Coasts,	253
Bars—Navigation and Winds—Climate,	253
Hot Countries—Temperate Countries—Cold Countries,	253, 254
Seasons—Periodical Rains,	254
Cause of the different Temperatures—Temperature of the Internal Provinces,	254
Dryness of the Soil—Limits of perpetual Snow,	254
Saline efflorescences—Salubrity,	255
Vegetable Productions—In the Hot Region—In the Temperate Region—In the Cold Region,	255
Alimentary Plants,	256
Fruit Trees—The Sugar Cane—Indigo—Cacao,	256
Cochineal, &c.—Dye-woods,	256
Animals—The Dumb Dog—Domestic Animals,	256, 257

BOOK LXXXIV.

THE DESCRIPTION OF AMERICA CONTINUED.

Mexico, including New Mexico and the Captain-Generalship of Guatemala—Account of the Inhabitants.

Population enumerated—Its Increase—Obstacles,	258
The Small-pox—The Mexican Plague—Famines,	258, 259
Is Working in the Mines pernicious?	259
Classes of the Inhabitants,	259
The Indigenous Natives more numerous than before the Discovery,	259
Physical character of the Indigenous Natives,	259, 260
Ancient Civilization—Origin of this Civilization,	260

Moral Qualities—Assimilation of Religious belief, . . . 260, 261
 Their talent for Painting and Sculpture—Want of Imagination, . . . 261
 Their taste for Flowers—Wild Indians, . . . 261
 Hereditary Castes among the Indians—Conduct of the Caciques, . . . 261, 262
 Misery of the Indians, . . . 262
 Imposts—Civil Rights—Administration, . . . 262
 Mexican Spaniards—The Chapetons and Creoles, . . . 262
 Castes of Mixed Blood—The Mestizoes, . . . 263
 The Mulattoes—The Chinos or Zambos, . . . 263
 The Quarterons and Quinterons—Prerogatives of the Whites, 263
 Negroes, . . . 263
 Condition of the Slaves—Languages Spoken in Mexico—Aztec, . . . 263, 264
 Otomite—The Tarasc, &c.—Idioms of California, . . . 264
 Huastec Language—Idioms of Oaxaca, . . . 264
 The Maya Tongue—Languages of Guatimala, . . . 264

BOOK LXXXV.

THE DESCRIPTION OF AMERICA CONTINUED.

Continuation and Conclusion of the Description of Mexico—Topography of the Provinces and Towns.

New Albion—The Natives, . . . 265
 New California—Remarkable Places, . . . 265
 Indigenous Tribes—Old California—Physical Description, 265
 Indigenous Tribes—Missions, . . . 266
 New Mexico—Towns—Productions—Mountains, . . . 266
 Interesting Phenomenon of Physical Geography, . . . 266
 Indians—The Apaches—Manner of making War, . . . 267
 The Keres—The Nabajoa and the Moqui Indians, . . . 267
 Towns and Remarkable Edifices, . . . 267
 Intendancy of Sonora—Pimeria—New Navarre, &c. . . 267
 Cinaloa—Culiacan—New Biscay or the Intendancy of Durango, . . . 267, 268
 Intendancy of San Louis Potosi—New Leon, . . . 268
 Province of Texas—New Santander, . . . 268
 New Galicia, or the Intendancies of Zacatecas and Guadaluajara, . . . 268
 Mechoacan, or the Intendancies of Guanaxuato and Valladolid, . . . 268
 Indigenous Inhabitants—Towns, . . . 269
 The Intendancy of Mexico—Natural Curiosities—City of Mexico, . . . 269
 Civilization—Manners—Floating Gardens—Mechanical Arts, . . . 269, 270
 Aztec Monuments—Teoyaomiqui—Pyramids of the Sun and Moon, . . . 270
 Different Towns—The Hand-Tree, . . . 270
 The Intendancy of Puebla de los Angeles—Pyramid of Cholula—Towns, . . . 271
 Republic of Tlascal, . . . 271
 The Intendancy of Vera Cruz—Pyramid of Papantla—Towns—Tabasco, . . . 271
 Intendancy of Oaxaca—Remarkable Ruins, . . . 271, 272
 Yucatan—Ancient Inhabitants—Physical Description, . . . 272
 Towns—English Yucatan—Kingdom of Guatimala—Province of Guatimala, . . . 272
 Towns—Destruction of Guatimala, . . . 272
 Province of Chiapa—Ancient Inhabitants, . . . 273
 Province of Vera Paz—Remarkable Productions—Province of Honduras—Floating Islands, . . . 273
 Mosquito Indians—English Establishments, . . . 273
 Province of Nicaragua—Lake of Nicaragua, . . . 274
 Volcano of Masaya—Productions—Indigenous Natives—Their Idioms, Laws and Customs, . . . 274
 Province of Costa Rica—Veragua, . . . 274

BOOK LXXXVI.

THE DESCRIPTION OF AMERICA CONTINUED.

General Physical Description of Spanish South America.

Extent of South America, . . . 275
 General Physical Aspect, . . . 275
 RIVERS—The Amazon, or the River of the Amazons—The Ucayal, . . . 275
 The High Maranon—Different tributary streams, . . . 275
 The Madeira—River of Para, . . . 276
 The Rio de la Plata—The Paraguay, . . . 276
 The Oronoko—Golfo Triste—Dragon's Mouth, . . . 276
 Cataracts of the Oronoko, . . . 277
 The Casiquiari—Lakes without any outlet, . . . 277
 The Andes—General Direction—Chain of Caraccas, . . . 277
 Little Chain of the Isthmus—Cordilleras of New Granada, 278
 Passage of the Andes, . . . 278
 Defile of Quindiu—The Quebradas—Cordillera of Quito, . 278
 Elevated Plateaus—Appearances of the Higher Summits, 278, 279
 Elevation of the Andes of Quito—Structure and Geological Composition, . . . 279
 Volcanoes, . . . 279
 Cordillera of Peru, . . . 279
 Cordillera of Chili—Situation of the Mines—Fossil Remains, 280
 Climates and Temperature—Three Zones—Cold Zone—Hot Zone, . . . 280
 Temperate Zone—Vegetation—Region of the Palm Tree, . 280
 Region of the Cinchona—Region of the Oaks, . . . 281
 Region of Shrubs—Vegetation of the Paramos—Region of Alpine plants, . . . 281
 Region of the Grasses—Cultivated Plants, . . . 281
 Animal Kingdom—Animals of the Plains and Marshes, . . 282
 Animals of the Hills and Mountains—Animals of the Cold Zone, . . . 282
 The Coador, . . . 282, 283

BOOK LXXXVII.

THE DESCRIPTION OF AMERICA CONTINUED.

Particular Description of Caraccas, New Granada and Quito.

Different Denominations, . . . 284
 Divisions—Description of CARACCAS—Climate—Productions, 284
 Mines—Forests—The Lake of Maracaibo—The Lake of Valencia, . . . 284
 Cultivation—Cacao, &c.—Commerce—Principal Towns, . . 285
 The Island of Margarita—Population—Spaniards, . . . 285, 286
 French Colony—Army—Revenue—Description of Spanish Guiana, . . . 286
 Productions—Importance of the Oronoko, . . . 286
 Phenomenon of the Black Waters—The Llanos, . . . 286
 INDIGENOUS TRIBES—The Ottomacs, earth-eaters, . . . 287
 The Betoys and Maypures—The Guaicas—The Guajaribes, 287
 The Caribs—Remarks on their Languages—Figures engraved on the Rocks, . . . 287
 Description of NEW GRENADA, . . . 287
 Climate and Temperature—Rivers—Vegetation, . . . 288
 Mineral Productions—Platinum—Gold—Gold Washing of Choco, . . . 288
 Town and Plateau of Bogota—Cataract of Tequendama, . . 289
 Natural Bridges of Icononzo, . . . 289, 290
 Towns on the Isthmus—Towns on the North or Atlantic Sea, 290
 Air Volcanoes—Towns of the Interior, . . . 290, 291
 Province of Choco—Island of Gorgona, . . . 291
 Canal of Raspadura—Towns of the Kingdom of Quito, . . 291
 Provinces of the Interior—Volcanoes of Quito, . . . 291, 293
 Pichincha—Cotopaxi, . . . 292

Situation of these Volcanoes—Archipelago of the Gallapagos Islands, 292
 Natives Tribes of New Grenada—Ancient Tribes of Quito, 292
 Tribes of Popayan and Maynas—The Omaguas, 293
 Fabulous Traditions of the Muyscas—Bochica a Prophet and Lawgiver, 293
 Political System of Bochica, 293
 Muyscan Calendar, 293, 294

BOOK LXXXVIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Description of Peru according to its ancient limits.

Extent of Peru—Natural Divisions—Lower Peru, 295
 Upper Peru—Interior Peru—Agriculture—Roads, 295
 Vegetable and Animal Productions—Wool, 295, 296
 Riches—Gold—Silver Mines—Mercury—Minerals, 296
 Mines—Commerce—Commerce with Buenos Ayres, 296, 297
 Trade with the other Colonies—Commerce with Spain, 297, 298
 Towns of Peru—Lima—Earthquakes—Cuzco, 298
 Towns of Lower Peru, 299
 Towns of Upper Peru—Sugar Cane—Lake Titicaca, 299, 300
 Bridge of Rushes—Towns of Southern Peru, 300
 Potosi—Natives of Peru, 300, 301
 Roads, Canals, and Public Buildings—Character of the Peruvians, 301
 Forced labour of the Mines, 301, 302
 Decrease of Population, 302
 Longevity of the Natives—Mestizoes, 303
 Negroes—Peruvian Languages, 303
 Interior Peru—Natives, 303
 Dialects—Government—Marriages—Religion, 303
 Mohanes and Wizards—Talismans, 304
 Immortality of the Soul—Metempsychosis, 304
 Lamentations for the Dead—Cannibals, 304
 Agriculture—Hatchets—War—Diversions—Towns, 304
 Missions—Climate of Interior Peru—Roads—Productions, 305

BOOK LXXXIX.

THE DESCRIPTION OF AMERICA CONTINUED.

Chili, Paraguay, Terra Magellanica, or Patagonia.

CHILI—Plants—Animals—Provinces and Towns, 306
 Population and Inhabitants—Islands, 307
 Eastern Chili, or Cuyo—Tucuman, 307, 308
 Paraguay or Buenos Ayres—Aspect of the Country, 308
 Horses and Oxen, 309
 Chaco, Native Tribes—Abipons, 309
 Paraguay Proper—Mines—Vegetables, 309
 Animals—Towns, 309, 310
 Provinces on the Uruguay—Native Tribes—Towns, 310
 Missions of the Jesuits, 310
 Complaints against the Jesuits—Commerce of the Jesuits, 310, 311
 Expulsion of the Jesuits, 311
 Buenos Ayres—Character of the Husbandmen, 311
 Shepherds—Banditti—Productions of Buenos Ayres, 312
 Unoccupied Regions—Araucanians—Different Tribes, 312
 Warfare—Religion—Customs, 312, 313
 Seasons—Games—Polygamy, 313, 314
 Trade—Tuyu—The Puelches—The Pampas, 314
 Comarca Desierta—Country of the Cesares, 314
 Patagonia, 315
 Climate of Patagonia—Plains and Mountains, 315
 Plants—Straits of Magellan, 315, 316
 Terra del Fuego—Falkland Islands, &c. 316
 New South Shetland, 317

BOOK XC.

THE DESCRIPTION OF AMERICA CONTINUED.

General Observations on Spanish America.

Extent of Country—Population—Castes, 318
 Political Institutions—Civilization—Indians, 318
 Encomiendas—Repartimientos—Present State of the Indians, 318
 Administration—System of Administration, 319
 Finance—Improvements, 319
 Advantages of Free Trade—Defects in Galvez' Administration, 319
 Mines—Scarcity of Mercury, 320
 Annual Produce of the Mines in Spanish America at the beginning of the Nineteenth century, 320
 Revenue of the Spanish Colonies, 320, 321
 Spain's Title to her South American Colonies, 321
 Oppression of the Colonists, 321
 Causes of Independence—Independence of South America, 322
 Slavery—Liberty of the Press—Public Instruction, 322
 Improvements—Governments, 322
 Supreme Director—Independence of the Colonists, 323

Estimate of the Population of the Provinces of Buenos Ayres, Cordova, Tucuman, Mendoza, and Salta, under the Names of the Different Towns and Districts which send Representatives to Congress, 324
 TABLE showing the Amount of the National Revenue of the United Provinces in 1817, the Expenditure and the Balance remaining in the Treasury at the end of the same year, 324
 Population of Columbia, 324
 Statement of the Revenue of Venezuela and New Granada, 324

BOOK XCI.

THE DESCRIPTION OF AMERICA CONTINUED.

Kingdom of Brazil.

Line of Demarkation, 325
 Disputes about the Limits, 325
 Name of Brazil, 325
 Mountains on the Coast—Rocks, 325
 Northern Chain—Interior Chain—Central Plateau, 326
 Temporary Lake of Xarayes—Reefs—Inundations, 326
 Torrents—Climate of the Interior, 326, 327
 Of the Northern Coast—Of Rio Janeiro, 327
 Of the Island of St. Catharine's—Diseases, 327
 Minerals—Diamond District—Topazes, 327, 328
 Gold Mines, 328, 329
 Iron—Copper—Scarcity of Salt, 329

PLANTS—Variety of Palms, 329, 330
 Parasitical Plants—Superior Quality of the Wood—Great size of the Trees, 330
 Rapidity of their Growth—Plants used in Dyeing, 330
 Alimentary Plants—Aromatic Plants, Spices, &c. 330
 Animals—Birds—Departments, 331
 Ecclesiastical Divisions—Courts of Justice, 331
 Captaincy of Rio Janeiro—Capital of Brazil, 332
 Captaincy of Rio Grande, 332
 Capital of the District—St. Catharine's, 332
 Parishes—Those on the opposite Coast—Plain of Corritiva, 332
 Town and District of Santos—Road to San Paulo, 333
 Town of San Paulo—Population, 333
 Character of the Inhabitants—Origin of the Paulistas, 333
 Town of Porto Seguro—Capitania of Minas Geraes—Agriculture—Arts, 334
 Comarcas and Towns, 334
 Roads—Severity of the Laws against Smugglers—Inhabitants of Tejuco—Province of Goyaz, 334
 Government of Bahia—Productions—Chief Town of the Province, 335
 Sergippe, 335

Government of Pernambuco—Capital—Paraiba, 335
 Paiuhy—Government of Maranham—Government of Gran
 Para, 335, 336
 Mattogrosso, 336
 NATIVES, 336
 The Boticudos, 336
 The Puris—The Tupis, 336
 The Topinambos—Tribes in the Interior—The Guay-
 coros, 336, 337
 Bravery of the Brazilians, 337
 Language—Different Dialects, 337
 Actual State of Brazil—Total Population—The Court, 337, 338
 Revenue—Mulattoes and Negroes—Marine and Military
 Establishment, 338

BOOK XCII.

THE DESCRIPTION OF AMERICA CONTINUED.

Guiana.

Name of the Country—Coast—Low Grounds, 339
 Hills—Rivers, 339
 Seasons—Heat—Prevailing Winds—Diseases, 339, 340
 Inundations—Vegetation—Fruit Trees, 340
 Aromatic Plants—Medicinal Plants—Poisons—Forest Trees, 340
 Parasitical Plants—Quadrupeds, 340
 Ant Bears—Cancrophagus, 341
 Bats—Reptiles—Birds—Fish, 341
 ENGLISH GUIANA—Essequibo, 341
 Demerary—Berbice, 341
 DUTCH GUIANA—Surinam, 341
 Appearance of the Country—Revolted Negroes, . . . 341, 342
 FRENCH GUIANA—Cayenne—Indian Tribes, 342
 The Galibis—Different Tribes—Traditions concerning El
 Dorado, 342, 343

BOOK XCIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Columbian Archipelago, or the Greater and Lesser Antilles.

Name—Divisions, 344
 Caribbean Sea—Gulf Stream, 344
 Transparency of the Water—Fresh Water Springs in the Sea, 344
 Mountains and Rocks, 345
 Climate and Seasons, 345
 Diseases—Animals, 345
 Colibri—Fruit Trees, 345, 346
 Shrubs and Flowers, 346
 Alimentary Plants—Sugar cane—Field of Canes, . . . 346
 Conflagration of a Cane Field—Cotton and Coffee, . . 346, 347
 Natives, 347
 CUBA, 347
 Minerals—Vegetables—Army—Principal Towns, . . . 347
 JAMAICA, 347
 Mountains—Climate—Productions, 348
 Divisions—Government—Towns, 348
 Population—Exports, 348
 ST. DOMINGO—Mountains, 348
 Metals—Minerals—Spanish Settlements—Productions, . . 349

Towns—Tomb of Columbus—Bay of Samana—French Set-
 tlements—Productions, 349
 Towns—Kingdom and Republic of Haiti, 349
 PORTO-RICO—Productions—Towns—Biequen—Popula-
 tion, 349, 350
 BAHAMA or LUCAYOS ISLANDS—Inhabitants—Productions, . 350
 VIRGIN ISLANDS, 350
 DANISH ANTILLES—Santa Cruz—St. Thomas, 350
 Anguilla—St. Martin—St. Bartholemew, 350
 DUTCH ANTILLES—St. Eustatia, 350
 Saba, 351
 BRITISH LEEWARD ISLANDS—Antigua, 351
 Barbuda—St. Christopher's—Nevis and Montserrat—Guada-
 loupe, 351
 Population—Volcanoes—Productions—Towns, 351
 Dominica—Martinico—Mountains, 352
 Population—Towns—St. Lucia—St. Vincent, 352
 Black Caribs—Grenadines—Grenada, 352
 Barbadoes—Tobago, 352, 353
 Trinidad—Bituminous Lake, 353
 Towns and Harbours, 353
 DUTCH ISLANDS—Curaçoa, 353
 Wealth of the Antilles—Increase of Population, 353
 Duties—Exports—State of the Negroes, 354
 Means of improving the Condition of the Slaves, 354
 The Appearance of a Morning in the Antilles, 354
 A Hurricane, 355

TABLE of the Principal Geographical Positions of America,
 determined with some accuracy, 356—358

BOOK XCIV.

EUROPE.

Its Physical Geography—Seas, Lakes, Rivers, and Mountains.

Introduction, 359
 Limits of Europe, 359
 Superficial Extent—Dimensions—Centre, 360
 SEAS AND GULFS—Atlantic Ocean—White Sea—North or
 German Sea, 360
 Jutland Channel (Skager-Rack)—Katte-Gat, 360
 The Baltic—British Channel—Bay of Biscay, 360, 361
 The Mediterranean—Italian Sea—Adriatic Sea—Archipel-
 ago—Black Sea, 361
 Currents in the Mediterranean, 361
 Caspian Sea—Coasts of Europe, 361
 Superficial Extent of the European Seas and Gulfs, . . . 362
 LAKES—Lakes to the East of the Baltic, 362
 Scandinavian Lakes—Lakes to the South of the Baltic—
 Alpine Lakes, 362
 Italian Lakes—Irish Lakes—The proportion between the
 Basins in Europe—The Six largest Rivers in Europe, . . 362
 EUROPEAN MOUNTAINS—The Table-Land of Waldai—The
 Dofrine Mountains, 363
 The Caledonian Mountains—The Great Northern Plain—
 The Alps, 363
 The Appennines—The Dinarian Alps, 363
 Jura, Vosges—The Cevennes—The Pyrenees—The Alpujar-
 ras—Mount Hæmus, 364
 Olympus, Pindus, &c.—The Carpathian and Hercynian
 Mountains, 364

EUROPEAN PLAINS AND VALLEYS—Upper and Lower Europe,	364
<i>Table of the different Rivers in Europe,</i>	365
<i>Superficial Extent of different Basins in Europe,</i>	366
<i>Height of the Principal Mountains in Europe,</i>	366—370
<i>Height of Buildings,</i>	370

BOOK XCV.

EUROPE CONTINUED.

Climate—Distribution of Animals and Plants.

Prejudices concerning Climate,	371
Errors of the Learned—Causes of European Climates—Asiatic Influence—East Winds,	371
Influence of Africa—South winds,	371, 372
Oceanic Influence—Conflict between the Maritime and Continental Winds,	372
Insular Climates,	372
South-west Winds—Progress of the Spring—Triangular Arrangement of European Climates—Heptagonal Arrangement,	372
Elevation of the Surface—Snow Line,	373
Level of Central Europe,	373
Level of the Sarmatian Plains—Level of Russia—Isothermal Lines,	373
Curvature of the Isothermal Lines in Europe,	373
Humidity of the Atmosphere—Salubrity of the Air,	374
Vegetation of the Oceanic Climate—Vegetation of the Asiatic Climate,	374
Effects of the Caspian Climate—Vegetation of the Mediterranean Climate,	375
Difference between the Vegetation of the West and East,	375
Levels of Vegetation,	375
Grain—The Vine—Hops—Wine and Beer—Oil and Butter,	376
Fruit Trees—Flax and Hemp,	376
Trees and Shrubs, growing spontaneously,	376, 377
Changes produced by Culture—Animals—In the North—In the East,	377
In the Central Countries of Europe—In the Alps, &c.—In the South,	377
<i>Table of the Physical Regions of Europe,</i>	378—380
<i>Table of Mean Temperatures, according to the Centigrade Thermometer,</i>	380

BOOK XCVI.

EUROPE CONTINUED.

Remarks on the Political Geography of Europe—Nations, Languages, Religion, Political Divisions, Governments, Population, &c.

Origin of European Nations,	381
European Languages,	381
European Races—Greeks—Albanians,	381
Turks—The Slavonians and Finns indigenous to Europe—Slavonian Nations,	381, 382
Walachians—Bulgarians—Finns—Hungarians,	382
Teutonic Nations—Germans,	382
Scandinavians—English—Ancient People of the West and the South,	383
Basques—Celts—Irish, Highlanders—Belgians—Welsh,	383
Latin Language—Modern Languages derived from the Latin—Numerical Relations of these different Languages,	383
Different Tribes speaking other Languages foreign to Europe—Religion—Greek Church—Latin Church—Protestants,	383, 384
Mahometans—Idolaters—Jews—Governments—Monarchies, absolute and limited—Despotism—Republics—Principal Powers,	384

Physical relations between the different States,	384
Constituent Parts of Empires,	385
Population, its distribution,	385
Causes of these results,	385
Maritime and Inland Population,	386
Increase of Population—Necessity of Emigration,	386
The limits that Population may attain in some Countries—Future Migration of Nations—Colonies,	386
Classes of Society—Reigning Families,	387
Nobility—Middle Classes—Authors,	387
Working Classes—Agriculturists and Husbandmen—Soldiers—Political Value of an Individual,	387
Remarks,	387, 388
Value of the Military service,	388
Northern States more powerful,	388
<i>Synoptical Table of ancient and modern European nations, classed by families and languages,</i>	388—394

BOOK XCVII.

EUROPE CONTINUED.

Physical description of Turkey in Europe.

Chains of Mountains,	395
Hæmus Proper,	395
Rhodope—Dardanian Mountains—Pindus,	395
Olympus—Parnassus—Chimera,	395, 396
Insular chains—Mountains in the Island of Andros—Seas—Pontus Euxinus,	396
Hypotheses concerning the Bosphorus,	396
Archipelago,	396, 397
Rivers and Streams,	397
Vale of Tempe—Ancient Lake in Thessaly,	397
Physical changes in Bœotia,	397
Earthquakes—Volcanic Islands,	398
Eruptions,	398
Caverns—Labyrinth in Crete,	399
Cavern in Antiparos—Cave of Trophonius—Fossil Bones,	399
Climate—Climate of the Mountains—Prevailing Winds,	399
North Winds—South Winds—The Zephyr,	399
The Etesian Winds,	400
The Ornithian Winds,	400
Diversity of Temperature—Vegetable Kingdom,	400
Forests on the North and the South of Hæmus,	401
Fruit Trees—Shrubs,	401
Vineyards—Transition of Plants—The Palm,	401
Animal Kingdom,	402
Animals now extinct—Mineral Kingdom—Gold and Silver Mines,	402
Marble,	402
Mines and Minerals in the Islands—Bitumen,	402, 403

BOOK XCVIII.

EUROPE CONTINUED.

Portion of European Turkey to the south of Mount Hæmus and the east of Pindus. Islands.

Ordinary Divisions—Constantinople—Its different names,	404
Port—Circumference—Interior,	404
Fanar—Seraglio,	404
Buildings,	405
Commerce—Pera, Galata—Environs,	405
Adrianople—North-western part of Romania,	405
Passes—Zagora, the Paulianists—Mount Strandschea,	405
Subterranean Town—Gulf of Bourgas—Tekiri-Dag,	406
Southern Coasts—Macedonia,	406
Mountains,	406
Rivers—Mines—Fruitfulness of the Soil,	406, 407

Cotton and Tobacco—Salonica—Mount Athos—Towns in the North-east—In the North-west—In the Centre—In the South—Different Tribes, 407
 Mount Athos—Towns in the North-east, 407
 Towns in the North-west—Central Towns, 408
 Different Tribes, 408
 Thessaly—Manufacturing Towns—The Meteora—Gulf of Volo, 408
 Greece Proper—Productions—Mount Parnassus, 408
 Athens—The Peloponnesus, or Morea—Towns and Fortresses, 409
 Character of the Modern Greeks, 409
 Greek Church—Greek Catholics, 409, 410
 Mainotes, 410
 Cacovouniotes—Candia, or Crete—Mountains, 410
 Climate—Productions—Towns, 410
 Sphachiotes—The Cyclades, 411
 Islands in the Gulf of Athens—Hydra, 411
 Continuation of the Cyclades—Negropont, or Egripo—Northern Sporades, 411
 The Seven Ionian Islands—Corfu, 411, 412
 Paxo—Santa Maura—Cephalonia—Ithaca, 412
 Zante—Cerigo—Ionian Republic, 412

BOOK XCIX.

EUROPE CONTINUED.

Turkey. Western Provinces. Albanians and Proto-Slavonians.

Albano-Dalmatian Mountains—Terraces in Albania and Dalmatia, 413
 Central Table-Land of Dalmatia, 413
 Plain of Kosovo, 413
 Climate, Vegetation—Lower Albania or Epirus—Climate—Productions, 414
 Animals—Valley of Janina, 414
 Walachians on Mount Pindus—Gulf of Arta, 415
 Suliotes—Paramithiotes—Parga, 415
 Philates—Chimariots—Basin of the Aous, 415
 The Nymphæum—Central Albania—Mirdites, 415, 416
 Lake of Ochrida—Course of the Drino—Dibra Upper and Lower, 416
 Upper Albania, Scodra—The Guegues or Guikhes—Their Tribes, 416
 Character of the Albanians—Albanian Women—Religion, 417
 Origin of the Albanians, and of their Language, 417
 Character of the Albanian Language—Connexion with the Japhetic Languages, 417
 Sanscrit Geographical Terms, 418
 Special Character of the Albanian Language, 418
 Connexion between the Albanian and Æolic, 418
 Names of Macedonian Months—Connexion with the Pelasgic, 418
 Names of the Pelasghi, 419
 Connexion with the Hellenic, 419
 Connexion with the Latin, 419
 Celticisms and Germanisms—Unknown Roots, 419
 Names of the Albanians, Skipitar, &c.—Limits of the Illyrian Language, 420
 Albanian Grammar, 421
 Albanian Alphabet, 421
 Cettas and Pharas—Superstitions, 421
 Novel method of Fishing—Montenegro, 422
 Manners—Productions, 422
 Turkish Dalmatia or Herzegovina—Towns and Fortresses—Rivers without outlets—Kullas, 422
 Bosnia and Turkish Croatia, 423
 Vegetable Productions—Corn, 423
 Forests—Animals—Mines and Minerals, 423
 Salt, 424
 Climate—Springs and Rivers, 424
 Principal Towns—Residence of the Pacha—Military Geography, 424, 425
 Language, Manners—Condition of the Women, 425

Religion—Podrinna, and other Districts, 425
 Rascia—Servia—Mountains and Rivers, 425, 426
 Productions—Inhabitants, 426
 Rights—Towns of Lower Servia, 426
 Monuments—Towns in the Interior, 426
 Tomb of Amurath I.—Proto-Slavonians, 427
 Proto-Slavonian Tribes in Thrace, 427
 Proto-Slavonians in Pannonia, &c. 427
 Religion—Arrival of the Slavonians Proper—Invasion of the Country by the Serbi, 428
 Croatian Invasion—Conclusion, 428

BOOK C.

EUROPE CONTINUED.

European Turkey—North-eastern Provinces—Walachians—Zigeunes or Gypsies.

The Bulgarians, their Origin and Migrations—Manners, 429
 Productions of Bulgaria—Towns and Remarkable Places, 429, 430
 Dobrudscha—Dobrudschan Tartars, 430
 Walachia, Origin of the Walachians, 430
 Formation of the Walachian Language, 430
 Names of the Walachians, 431
 Number—Government, 431
 Hospodars, 431
 Divan—Condition of the Peasantry, 431, 432
 Classes of the Peasantry—Privileges—Clergy, 432
 Natural Advantages—Rivers—Productions, 432
 Revenue, Taxes, and Exports, 433
 Divisions—Towns—Bucharest, Society—Turkish Fortresses, 433
 Towns in Little Walachia, 433, 434
 Passes—Moldavia—Climate, 434
 Productions—Wine, 434
 Animals—Cattle—Bees, 434
 Towns, 435
 Jassy, the Capital—Galacz, its Commerce, 435
 Government—Revenue and Expenses, 435
 Character and Manners—Ungareny, 436
 Zigeunes, Gypsies, or Bohemians—Character, 436
 Trades, Arts, &c. 436
 Number—Different Names of the Gypsies, 436
 Traditions—Language—Its Hindoo Character—Relations with the Persian, Slavonic, and Finnish, 437
 Hindoo Origin of the Gypsies—Objections—Indo-European Origin—The Sigynæ, 438
 The Sintii or Sindi, 438
 Ancient Nations of Hindoo Origin in Europe—Conclusion, 438
 Increase and decline of the Turkish power, 439—442

TABLE—The divisions of European Turkey according to Hadgi-Khalifa and Hisar Fenn, compared with those of Ricaut and Marsigli, 442, 443
 TABLE—Christian Kingdom of Bosnia and Servia. Divisions, 443
 Table of the Divisions of the Morea, according to M Pouqueville, 443, 444
 Table of the Population in European Turkey, according to M. Hassel (1823). 444
 Table of the Ottoman Armies, according to M. Hammer, 444

BOOK CI.

EUROPE CONTINUED.

Hungary and its Appendages; Physical Geography.

Introduction, 445
 Mountains—Carpathians Proper—Group of Tatra—Defiles of Jablunka, 445
 The Fatra—Alps of Liptau, 445
 The Hegy-Allya—Lowering of the Carpathian Mountains, 446

Opinion of M. Beudant—Opinion of M. Kitaibel,	446
Transylvanian Mountains,	446
Mountains of the Bannat—Central Mountains—Western Mountains,	447
Plains—Lakes—Lake Balaton,	447
Lake of Neusiedel—Discussion concerning the lake Peiso— Lake of Palics,	447
Marshes—Their extent,	448
Rivers—The Danube—The Theiss,	448
The Save,	449
The Drave—The Paprad—The Aluta—Climate of the Mountains,	449
Climate of the Hills—Climate of the Plains—Endemical Diseases,	449
Geology—Porphyry and Limestone,	449
Rock Salt—Saline Efflorescences,	450
Ancient Lake or Mediterranean—Trachyte Sandstone,	450
Basalt—Metals—Gold and Silver Mines—Tellurium,	450
Iron Mines—Copper Mines,	451
Different Metals—Salt Mines, and Saline Springs—Marbles and Precious Stones,	451
Coal—Vegetable Kingdom—Grain—Wines, Tokay,	451
Different cultivated Plants—Forests—Regions of Vegetation,	452
Cattle—Sheep—Horses,	452
Hogs—Game—Fish,	453

BOOK CII.

EUROPE CONTINUED.

Hungary and the adjacent Provinces. Towns, Divisions, &c.

Central Towns—Buda—Pesth,	454
Plain of Rokasch,	454
Towns in the North-west—Presburg, Royal Hill—Island of Schutt,	454
Towns in the Country of the Mines—Manners of the Miners —Caverns,	455
Different Natural Curiosities—The Sixteen Free Towns, in the County of Zips—Manners of the German Colony,	455
The See of the Ten Lancers—Northern Towns,	455
Caverns in the County of Torna,	455
Country of Vineyards—Towns—Towns in the North-east,	456
Different Nations in Northern Hungary—Slovacks—Their Increase,	456
Kopaniczars—Character of the Slovacks—Their Costume— Dialect of the Slovacks—Their Numbers,	456
Rusniacs—Manners and Customs—Marriages, &c.—Szo-taks,	457
Towns in the Plain—Debreczin,	457
Towns in the Bannat of Temeswar—Cavern of Veterani— Hungarian Walachians—Their Bigotry,	457
Funerals,	458
Superstitions—Remarks,	458
Walachian Fraternity—Towns between the Danube and the Theiss,	458
District of the Tchaikistes—Great and Little Cumania,	459
Cumans—Language—Origin—Iazygia—Haydeckes,	459
Trans-Danubian Circle—Towns and Remarkable Places,	459
Towns continued—German Inhabitants,	460
Vandals—Croatia and Slavonia—Physical Regions—Valleys without outlet, Caverns—The Borra,	460
Productions—Slavonia—Productions—Agriculture,	461
Population—The Croatians—Zupania,	461
Character—Manners,	462
Towns of Croatia—Coast of Croatia,	462
Caroline Way—The Zbiztri—Josephine Way,	462
District of Turopolia—Towns in Slavonia—In Symria—King- dom of Dalmatia—Dalmatia Proper—Towns,	463
Islands of Dalmatia—Trade and Manufactures—Fishes— The Morlachians,	463
District of Poglitza—Ragusa—Territory of Ragusa,	464
Towns—Ragusan Islands—Bocche di Cattaro,	464
Towns and Districts,	464
Manners of the Bocchesi—Transylvania—Name,	465
Divisions—Country of the Saxons—Towns,	465

Kronstadt—Foundation of the Saxon Colony,	465
Constitution—Manners—Name,	465, 466
Country of the Szecklers—Country of the Hungarians—Towns,	466
Name of the Carpathian Mountains,	466

BOOK CIII.

EUROPE CONTINUED.

Hungary concluded.—Researches on the Origin of the Hungarians. —General Remarks on Hungary, and the Provinces annexed to it.

Hungarians—Seat of the Nation,	467
Physical Character—Nobles—National Character,	467
Peasants—Costume—Diseases—Dances and Songs,	467
Hungarian or Magiar Language—Its Finnish Character,	468
Resemblance between the Hungarian and Armenian, &c.	468
Hungarian Literature—Government, Political Institutions— Royal Authority,	468
Hungarian Diet—Classes, Privileges,	469
Provincial Administration—Condition of the Peasants,	469
Urbarium,	469
Religious Liberty—Different Sects, their Hostility,	470
Different Sects in Transylvania—Education—Manufactures,	470
Commerce,	470
Jealousy of Austria—Value of Exports,	471
Army—Military Limits—Origin of the Hungarians,	471
Historical Summary—European Huns—Their Relation with the Finns—The Hunni-Var—Turks in the train of Odin —Great Hungary,	471
Conclusion,	472
Magiar Traditions—Lebedias,	472
Remarks on the Hungarian Traditions—Periods of their Early Migrations doubtful—Final Settlement of the Hun- garians,	473
Rise of the Hungarian Monarchy—Its Increase,	473
Its Fall—Civil Wars,	473
<i>Synoptical Table of the Political and Military divisions of Hungary, &c.</i>	473—475
<i>Population,</i>	475, 476

BOOK CIV.

EUROPE CONTINUED.

European Russia.—First Section.—Southern Russia.

Introduction—The Dniester,	477
Russian Moldavia—Towns,	477
Bessarabia—Physical Geography—Towns,	477
Great Roman Wall—Different Nations that have inhabited the Country—Origin of its Name,	478
Budziak Tartars,	478
The Dnieper—Its Falls—Islands in the Dnieper,	478
Towns on the River—Commerce of Odessa,	479
Physical Geography of the Country between the Dnieper and the Dniester,	479
Country between the Dnieper and the Sea of Azof—Towns —Colony of New Russia,	479
Duchoborzets—Kurgans—The Crimea or Taurida—Plains,	480
Putrid Sea—Mountains,	480
Southern Vallies—Vegetation,	480
Agriculture—Obstacles by which its Improvement is retarded,	481
Towns and Remarkable Places—Karaites Jews,	481
The Kriou-Metopon—The Klimata—Tartars of the Crimea— Castes—Dwellings,	481
Character and Manners—Colonists,	482
History of the Cossacks,	482
Origin of the Name—Cossacks of Little Russia,	482
Cossacks of the Slobodes or Russian Ukraine,	483
Zaparogues—Government—Revolutions,	483
Country of the Cossacks of the Black Sea—Mud Volcanoes,	484

Cossacks of the Don, 484
 Country of the Don Cossacks—Manners, Habitations, 484
 Political Liberty—Towns, 485
 The Don, 485
 Sea of Azof—Russian Calmucks—Isthmus of the Caspian, 485
 The Wolga—Its Breadth, 486
 Polumna or Lungs of the Wolga—Navigation of the River, 486
 Name of the Wolga—the province of, 486
 Physical description of Astrakan, 486
 Ridge of Rynpeski—Low and Fertile Districts—Extremes of Heat and Cold, 487
 Towns—Astrakan—Hindoo Residents, 487
 Country of the Uralian Cossacks—Fisheries on the Ural, 487
 Towns, Manners, &c.—Historical Remarks—Their Expeditions in Asia, 488

BOOK CV.

EUROPE CONTINUED.

Eastern Russia.—Second Section.—Finno-Huns or Uralians.

Finno-Hunnic Race, 489
 Connexion between the Scythians and Finns discussed, 489
 Language of the Royal Scythians, 489
 Connexion between the Finns and Huns discussed, 490
 Present Extent of the Finnish Nations, 490
 Progressive Discoveries, 490
 Temple of Jumala, 490
 Uralian Finns—Iougorian Tribes, 491
 Western or Baltic Finns, 491
 Laplanders—Wolgaic Finns, 491
 Description of the Country—Government of Orenburg—Remarkable Rivers, 491
 Iron and Copper Works—Ridge of Obstchei Sirt—Granite Islands, 492
 Sulphur Lake—River of Milk—Town of Orenburg, 492
 Commerce with Asia—Trade in Eagles—Other Towns, 492
 Bashkirs—Meschtscheriaks, 493
 Teptiars—Government of Saratow—German Colonies—Towns, 493
 Government of Simbirsk—Towns—The Zarew-Kurgan—Government of Kasan, 493
 Town of Kasan—Ruins of Bolgari, 494
 Manners of the People—Tchuwashes—Their Mythology—Civil Customs, 494
 Tcheremisses—Their Mythology, 494
 Manners and Customs—Mordwins—Their Tribes, Religion, 494
 The Tartars of Kasan, 495
 Government of Wiatka—Table-Land—Towns, 495
 Wotiaks—Manners and Customs, 496
 Names of Divinities—Government of Perm, 496
 Western Uralian Mountains—Mines and Minerals—Climate—Vegetation, 496
 Towns—Permians and Siriaines, 496
 Ancient Monarchy of the Tchudes or Finns—Permian Alphabet, 497
 Religious Monuments, 497

BOOK CVI.

EUROPE CONTINUED.

European Russia.—Third Section.—Northern Russia.—Countries on the White Sea.

General Survey, 498
 Country to the East of the White Sea—Rivers—The Pitschora, 498
 The Dwina—Climate, 498
 Soil and Productions—Domestic Animals—Game—Berry-bearing Shrubs, 498, 499

Town of Archangel, 499
 Fisheries—Commerce of Wologda and Oustioug-Weliki, 499
 Manners of the Merchants—Other Towns, 500
 Udoria, &c.—Situation of Iotun-Heim, 500
 Samoiedes, their Name—Tribes of the Samoiedes, 500
 Different Animals—Productions of the Country—Physical Character, 500
 Dwellings—Superstition, 501
 Government of Olonetz—Olonetz Hills—Gold-Mines—Towns, 501
 Island of Solowetskoi—Russian Lapland, 501
 Table-Land—Rocks, 502
 Metals—Rivers and Lakes, 502
 Appearance of the Country, 502
 Climate of the Maritime Region, 502, 503
 Climate of the Central Table-Land—Vegetation—Zones of Vegetation in Southern and in Northern Lapland, 503
 Flora Lapponica—Mosses—Rein-deer's Lichen, 503
 Bear's Moss—Pastures—Shrubs, 503
 Animals, the Rein-deer—Electricity of the Rein-deer, 504
 Other Animals, 504
 Birds—Laplanders—Their Name, 504
 Physical Constitution—Character—Intemperance, 505
 Life of the Rein-deer Shepherds—Tents, 505
 Sledges, Manner of Travelling—Burning of the Forests, 505
 Dress—Industry—Food—Lapland Fishermen, 505
 Feasts, Songs—Diseases, Medicine, 506
 Language—Relation to the Hungarian, 506
 Superstition of the Laplanders, 506
 Names of the Gods—Two Families of Gods, 507
 Worship—Idols—Holy Places—Magic, 507
 Gulf of Magicians, 508

BOOK CVII.

EUROPE CONTINUED

European Russia.—Fourth Section.—Provinces round the Baltic Sea.

General Survey, 509
 Finland—Physical Description—Mountains—Central Table-Land, 509
 Giants' Caldrons—Minerals—Rivers and Lakes, 509
 Belt of Rocks along the Coast—Different Climates—Scenery, 510
 Soil—Animals—Forests—Fruit trees—Agriculture, 510
 Method of Clearing the Ground—Navigation, Roads, 510
 Provinces and Towns—Caretia—Fleet of Galleys, 511
 Manner of Fighting—Kuoppio—Savolax, 511
 Basins of Lakes—Heinola—Nyland, 511, 512
 Tavastland—Remarkable Places, 512
 Fortress of Sveaborg, 512
 Finland Proper—Towns—Abo, 512
 Aland Islands—Soil—Productions—Inhabitants, 513
 Ostrobothnia—District of Wasa—Of Uleaborg, 513
 Towns—Castle of Hysis—Inhabitants, 513
 Finlanders—Their Ancient Seat—Tribes in the middle ages, 514
 The Quaines, Quenes, or Kaines—The Ymes, 514
 The Kyriales—Mythology of the Finlanders, 514
 Magic—Finnic Orpheus, 515
 Finnic Language—Dialects—Runic Characters—Moral Character, 515
 Government—Schools, 515
 Poetry and Music—Habitations—Vapour Baths, 515, 516

BOOK CVIII.

EUROPE CONTINUED.

European Russia.—Fourth Section.—Description of the Provinces on the Baltic, continued and concluded.

Gulf of Finland—The Neva, 517
 Its Inundations—Lake Ladoga—Lake Onega—Ingria, 517

Climate and Seasons,	517
Petersburg—Its Situation—Its different quarters,	518
Population—Architecture,	518
Statue of Peter the Great,	519
Trade of Petersburg—Public Amusements—Neighborhood of Petersburg—Palaces,	519
Cronstadt—Narva—German Provinces,	519
Indigenous Tribes—Successive Inhabitants,	520
Bremish Expeditions—Scandinavian Expeditions,	520
Crusades on the Baltic—Orders of Knighthood,	520
Swedish Wars—Russian Conquest,	520, 521
Physical Geography—Hills,	521
Climate—Plants,	521
Animals—Lakes—Rivers—The Duna,	521
Topographical details—Esthonia—Towns—Revel,	522
Livonia—Town of Riga—Trade,	522
Fortifications—University of Dorpt—Courland,	523
Climate—Productions—Towns,	523
Lake of Sauken—Promontory of Domesnes—Esthonian Archipelago—Island of Cesel,	523
Island of Dago—Inhabitants of the three German Provinces—Nobility—Livonian Ladies,	523
Burgesses—Peasantry,	524
Esthonians—Name—Language—Popular Songs,	524
Mythology,	524
Sacred Fountains and Rivers—Catholic Traditions—Singular Anecdote,	525
Holy Places—Monuments,	525
The Kangers—Opinion of M. Bray,	525
Calendars,	526
Character of the Esthonians—Lettonians—Moral and Civil Condition—Superstitions,	526

BOOK CIX.

EUROPE CONTINUED.

<i>European Russia.—Fifth Section.—Central Provinces or Great Russia.</i>	
Preliminary Remarks,	527
Central Table-Land—Heights of Volchonski—Calcareous hills,	527
Chalk Banks—Hills of Waldai—Table-Land to the North-east—Wolgaic Chain,	527
Climate, Four Zones,	528
Vegetation, Trees—Forests, their Utility,	528
Agriculture—Method of drying Wheat,	528
Fruit Trees—Apples from Asia,	529
Horticulture—Gardeners of Rostow—Animal Kingdom,	529
Russian Horses—Government of Novgorod—History of the Town of Novgorod,	529
Governments of Pleskow and Witepsk—Physical Description,	530
Inhabitants,	530
White Russians—Their Classes—Towns,	530
Government of Smolensko—Towns,	531
Government of Tver—Towns,	531
Government of Moscow—Productions—Manufacturing Industry—Commerce—Towns—Moscow,	531
Extent, Appearance—Number of Houses and Inhabitants,	531
The Kreml or Kremlin—Bells,	532
Kitajgorod—Bielogorod—Semlanoi-Gorod,	532
Other towns,	532
Monasteries—Government of Wladimir—Rivers, Towns,	533
Manufactures and Agriculture,	533
Lake Poganovo—Government of Jaroslaw—Towns—Manufacturing Industry—Government of Kostroma,	533
Government of Nischnei-Novgorod—Natural Curiosities,	534
Town of Nisch-Gorod—Manufactures,	534
Government of Penza—Variety of the Horse,	534
Government of Tambof—Productions—Population—Towns—Steppes,	534
Government of Riäsan—Lakes in the District of Iegorievsk—Productions—Quails,	535

Tartars of Kasimow—Town of Riäsan—Government of Tula,	535
Finnic Race—Wiätitches—Town of Tula,	535
Great Number of Nobles—Government of Kaluga—Religious Processions,	536
Government of Orel,	536
Government of Kursk—Climate, &c.	536
Towns—Itinerant Merchants,	536
Government of Woronesch—Climate and Productions—Town of Woronesch,	537
The Divni-Gori—Fossil Bones,	537

BOOK CX.

EUROPE CONTINUED.

<i>European Russia.—Sixth Section.—Provinces of Little Russia.—Manners and Customs of the Russians.</i>	
Historical remarks,	538
General Physical Description—Plains and Table-Lands,	538
Hills—Rivers,	538
Climate and Productions—Inhabitants,	539
Topographical Description—Town of Kiew,	539
Government of Charkof—Grapes in the Gardens of Isium,	539
Government of Pultava—Towns—Monument,	539, 540
Government of Tchernigof—Trade of Nejm—Government of Kiew,	540
Government of Podolia—Animals—Population,	540
Government of Volhynia—Productions—Towns,	540
Territory of the Order of Malta—Russian Nation—Difference between the Great and Little Russians,	541
Freedom and Slavery—Force and Patience of the Russians,	541
Physical Character—Women,	541
Marriage Ceremonies—Funerals,	541, 542
Religious Festivals—Heathen Ceremonies—Dress,	542
Dress of the Women—Use of Rouge—Dwellings,	542
Furniture—Food—Diseases,	542, 543
Remedies—Baths—Vapour Baths, known to the Ancients,	543
Amusements—Russian Mountains—Domestic Industry,	543
House Market—Different Classes of Peasants,	543, 544
Merchants and Tradesmen—Dress and Manners,	544
Clergy—Marriage of the Priests—Monks,	544
Nobles—Calumnies—Unfortunate Position,	544
Progress of Knowledge—Court Intrigues,	545
Actual Improvement—Hospitality—Language, Dialects—Ancient Divinities of the Russians,	545, 546
Vital Fire,	546
Divinities of the Spring—Testimony of Procopius—Supposed Dualism,	546
Temples and Holy Places,	546

BOOK CXI.

EUROPE CONTINUED.

<i>European Russia.—Seventh Section.—Lithuanian Provinces.</i>	
Origin of the Lithuanians—Lithuanian Chronicle,	547
Russian Chronicles—Formation of the Grand Dutchy,	547
Jagellon—Union with Poland,	547
Definitive Treaty (1569)—Results,	548
Russian Governments—Samogitia—Physical Description,	548
Towns, Houses—Samogitians,	548
Manners and Customs—Ancient Worship,	548, 549
Honours rendered to the Dead,	549
Lithuania—Physical Details—Climate—Productions,	549
The Niemen—Lithuanians,	549, 550
Lithuanian Language,	550
Towns—Wilna—University,	550
Monastery—Tartar Tribe—Lithuanian Russia, White and Black,	551

Physical Description, 551
 Agriculture, 551
 Condition of the People—Towns in White Russia—Moldavian Colony, 551, 552
 Towns in Black Russia—Polesia—Oginski Canal, 552
 Towns in Polesia—Province of Bialystock, 552

BOOK CXII.

EUROPE CONTINUED.

Russia concluded.—Origin, Rise and Resources of the Russian Empire.

Origin of the Slavo-Russians—Varagians, 553
 States founded by the Varagians—Extension of the Russian Name, 553
 Nucleus of the Russian Nation—Successive Additions, 553, 554
 Internal Resources, 554
 Muscovites of the Sixteenth Century—Efforts of Peter the First, 554
 Revolutions under his Successors, 555
 Insurrections of the Nobles, 555
 Military Glory—Political Intrigues—Conquests by Catherine—Division of Poland—Foreign Policy, 555, 556
 Alexander—Conquests by Alexander—Natural Limits of Russia, 556
 Annual Increase of Population—Progress of Industry—Rearing of Cattle, 556
 Agriculture, Produce, 556
 Mines—Chase—Fisheries, 557
 Manufactures—Spirits—Cloth, Stuffs, &c. 557
 Revenue, 558
 Expenditure—Land Forces—Military Colonies—Navy—Form of Government—Council of the Empire—Senate, 558
 Holy Synod, 559
Hassel's Table of the Population in the Russian Empire, including Poland and the Vassal States, 1st January, 1823, 559, 560
Critical Observations on the Preceding Table, 560
 TABLE of the Population of the different Nations in the Russian Empire, 560, 561
 TABLE of the Principal Towns in the Russian Empire, 561

BOOK CXIII.

EUROPE CONTINUED.

Kingdom of Poland—Republic of Cracow.

Division of Poland, 562
 Name—Sarmatian Plain—Sand—Ridges or Table-Lands—Granite Blocks, 562
 Circular Cavities—Floating Islands—Division of the Waters, 562, 563
 Rivers and Streams, 563
 Climate of Upper Poland—Climate of the Plains, 563
 Periods of Vegetation—Extreme Variations, 563
 Meteors—Mists and Fogs, 564
 Water—Its Insalubrity—Minerals—Mines of Upper Poland, 564
 Quarries—Agriculture—Forests, 565
 Bees—Fish—Birds, 565
 Quadrupeds—Training the Bear—On the Existence of the Urus, 565
 Uncertainty of Names, 565, 566
 The Poles—Diseases—Small Pox, 566
 Syphilis—Plica—Unknown Cause, 566
 Effects of the Disease—Origin of Plica, 566
 Departments—Warsaw, 567
 Quarters of the Town—Massacre at Praga, 567
 Library of the Zaluski—Public Buildings—Neighbourhood of Warsaw, 567

Other Towns in Masovia—Waiwodat of Kalisch, 568
 Waiwodats of Cracow and Sendomir—Plateau of Little Poland, 568
 Waiwodat of Lublin—Remarkable Castles, 568
 Waiwodat of Polachia—Waiwodat of Plock—Towns, &c. 569
 Waiwodat of Augustowo—Surface and Population of the Kingdom, 569
 Constitution—Republic of Cracow—Aspect of the Country—Town—Monuments, 569
 Commerce—University—Tomb of Queen Venda, 570
 Baths of Krzeszowice, 570

BOOK CXIV.

EUROPE CONTINUED.

Kingdom of Galicia, or Austrian Poland.—Polish Language and Antiquities.

Names of Galitzia and Lodomiria, 571
 First Historical Date, 571
 Hungarian Influence—Physical Description—Mountains, 571
 Hills—Climate, 572
 Productions—Grain—Cattle—Fishponds—Minerals, 572
 Salt Formation, 572
 Salt Mines of Bochnia and Wieliczka—Details, 572, 573
 Different Varieties of Salt—Town of Lemberg, 573
 Manners and Mode of Living—Polish Part of Galicia—Towns, 573
 The Goralis—Features—Arms, 574
 Mode of Living—Food—Longevity, 574
 Costume—Rusniak Portion of Galicia, 574
 Towns—Karaites—The Russinie or Rusniaks, 575
 Churches—The Houcoles—State of the Country—German Colonies, 575
 Peasantry—Nobles, 575
 Progress of Industry—Exports—Military Force—Revenue, 575
 Bukowine—Climate, Productions—Towns—Inhabitants—Historical Details, 576
 Polish Language, 576
 Origin of the Poles—The Szlachcics, 576
 National Divinities, 577
 Discussion on the Sarmatians—Physical Character, 577
 Origin of the Name—Migrations of the Sarmatians, 577
 Extinction of the Sarmatians—Sarmatians in the Fourth Century, 578
 Statistical Table of Galicia, 578

BOOK CXV.

EUROPE CONTINUED.

Kingdom of Prussia, and the Grand Duchy of Posen.—Historical Account of the ancient Pruczi and the Teutonic Knights.

The Pruczi—Etymology of their Name, 579
 Their different Tribes—Language of the ancient Pruczi—Hierarchy—The Kriwe, 579
 Different Classes of Priests, 579
 Asiatic Customs—Different Classes of Divinities, 580
 Festivals and Sacrifices—Sacred Oaks and Lime Trees, 580
 Manners, Government—Distinction of Caste—History, 580
 Missionaries—Crusades—Teutonic Order, 580
 Conquest of Prussia—Change of Government, 581
 Rise and Fall of the Teutonic Order—Luxury and Wealth, 581
 Assassination of Lezkau—Insurrection in 1454—Subjection of the Order, 581
 Extinction of the Order—Protestant Reformation—Royal Title—State of the Kingdom, 582
 Division of Poland—Present Extent of Prussia, 582
 Description of Prussia—Plains and Hills—Rivers, 582
 Haf's or Maritime Lakes—The Frisch Haf—The Curisch Haf, 583

Changes that have occurred in these Lakes—Succin, or Amber—Palace with Walls of Amber, 583
 Opinions concerning the Origin of Amber, 583
 Use and Value—Localities—Agricultural Produce, 584
 Forests—Animals—Breeds of Horses—Towns, 584
 Königsberg, 584
 Shores of Frisch Haf—Towns on the Pregel—Towns on the Niemen—Towns in the Interior, 585
 Dantzic—Historical Details, 585
 Harbour and Road—Commerce—Manufactures, 585
 The Werders—Elbing—Commerce and Navigation, 586
 Other Towns on the Vistula—Classes of Inhabitants in Prussia, 586
 Free Peasantry—Costume of the Peasants in Lithuanian Prussia, 586
 Nobles, 586
 Burgesses—Burgesses of Dantzic, Manners—Republican Spirit—Former Luxury, 586, 587
 Grand Duchy of Posen—Physical Details—Rivers and Marshes—Peasantry, 587
 Catholic Clergy—Population, German Colonists, 588
 German Millers—Towns—Poznan or Posen—Manufacturing Towns, 588
 Protestant Colony of Lissa—Fair of Gnesna, 588, 589

BOOK CXVI.

EUROPE CONTINUED.

Germany.—First Section.—Physical Description of Germany.

General Remarks, 590
 Mountains—German Alps—Hercynio-Carpathian Mountains—General Character—Divisions, 590
 Gesenker-Gebirge, 591
 Riesener-Gebirge—Erz-Gebirge—Böhmer-Wald—Thuringer-Wald—Rhoene Mountains, 591
 Porta Westphalica—The Hartz—The Alb—The Black Forest, 591
 Plains—Rivers—The Danube, 592
 The Lech and the Iser—The Inn—Eddies of the Danube—The Ens—The Morawa—The Rhine, 592, 593
 Hypothesis concerning its Ancient Course—Falls of the Rhine—The Aar, 593
 The Neckar and the Maine—The Moselle—The Ruhr and the Lippe—Delta of the Rhine, 593
 The Ems—The Weser—The Aller—The Elbe—The Mulda, 593
 The Saale—The Havel—The Oder, 594
 The Wartha—Mouth of the Oder—Lakes—Climate, 594
 First Zone—Second Zone—Third Zone, 594
 Mineral Waters—Minerals, 594, 595
 Of Bohemia and Saxony—Of Thuringia—Of the Hartz, 595
 Of Westerwald—Of Tyrol, &c.—Of Styria, &c. 595
 Vegetable Kingdom—Forest trees—Of the Central Zone—Of the Northern Plains—Of the Alpine Zone, 595
 German Flora—Grain—Alimentary Vegetables, 596
 Gardening—Useful Plants—Vineyards—Fruit Trees, 596
 Animals—Breeds of Oxen—Horses, 597
 Poultry, Game, &c.—Sea Fishing—Fish in the Rivers, 597
 Wild Animals, 597, 598

BOOK CXVII.

EUROPE CONTINUED.

Germany.—Second Section—Prussian States on the Oder and the Elbe.

General View, 599
 SILESIA, Position, &c. 599
 Name—Silesia under the Poles—Dukes of the Piastian Race, 599
 Submission to Bohemia—Religious Persecution, 599
 Prussian Conquest—Soil—Mountains, 600
 Meadows and Marshes—Rocks—Granite, 600

Gneiss—Schistus—Porphyry, 600
 Serpentine—Conglomerates, 601
 Stratified Limestone—Sandstone—Basalt, 601
 Useful Productions—Coal, 601
 Copper—Lead—Iron—Gold and Silver, 602
 Corn—Fruit, 602
 Flax and Hemp—Forests, 602
 Wool—Fish, 602
 Manufacturing Industry—Linens, Cloths—Commerce, 603
 Climate—Inhabitants—Germans, 603
 Wends—Slavonians—Religion, 603
 Causes of the decrease of the Catholics, 604
 Nobility—Peasants—Towns—Breslau, 604
 Other Towns, 604
 Towns in the Mountainous Districts, 605
 Ancient Inhabitants of Liegnitz, 605
 Mount Landscrone, 606

BRANDENBURG.—Position—Limits—Ancient Inhabitants, 606
 Origin of the Margraviate, 606
 Soil, 607
 Lakes—Agriculture—Corn—Beet Sugar—Wine, 607
 Cattle, 607
 Silk-worms—Bees—Fish—Manufacturing Industry—Minerals, 607
 Climate, 608
 Inhabitants—Public Spirit—Language—Towns—Towns in the South, 608
 Frankfort on the Oder—Cottbus, 608, 609
 Potsdam—Ancient name—Public Buildings, 609
 Berlin, 610
 Number of Streets and Houses—Royal Palace—Arsenal—Theatres, 610
 Churches—Squares, 610
 Gates—Libraries, Collections, &c.—University, 610
 Academies, 611
 Walks—Elevation of the Soil—Rents of the Houses, 611
 National Guard—Manufactures—Brandenburg, 611
 Fisheries on the Havel—Towns in the North—Custrin, 612

POMERANIA, Position, &c.—Ancient Inhabitants—Kingdom of the Wends—Ancient Worship—Dukes, 613
 Historical Details—Soil—Climate—Agriculture—Vines, 614
 Fish, 614
 Different Animals—Island of Rugen—Hiddensø, Humantz, Ruden, 614
 Ancient Inhabitants—Industry—Bergen—Antiquities, 615
 Sacred Wood—Hertha or Erde, 615
 Thermal Springs—Usedom—Wollin—Towns—Stralsund, 615
 Towns in the same Circle—Circle of Stettin, 615
 Stettin—Neighbourhood, 616
 Trade—Stargard—Colberg—Köslin, 616

PROVINCE OF SAXONY—Ancient Inhabitants—Ancient Saxons, 617
 Geology—Sandstone of the Coal Formation—Fossil Shells in Sand, 617
 Bituminous Schistus—Fossil Fish—Successive Deposits—Mountains, 617
 Agricultural Produce—Manufactures—Religion, 618
 Foreign Districts—Towns—Wittenberg, 618
 Tombs of Luther and Melancthon—Manufacturing Industry—Other Towns—Tomb of Catharine Bora—Naumburg, 618
 Hussites—Environs of Naumburg—Banks of the Saale, 618
 Merseburg—Tomb of Rodolph of Swabia—Neighbouring Country—Halle—Golden Bull—University, 619
 Mines of Rock Salt, 619
 Wettin—Eisleben—Luther—His House, &c. 619
 Erfurt, 620
 Luther's Cell—Meeting of Sovereigns at Erfurt—Nordhausen, 620
 Anniversary of Luther—Elrich—Cavern of Kelle—Langensalza, 620
 Remains of Elephants—Osteocolla—Government of Magdeburg—Abbey of Quedlinburg—Tomb of Henry the First, 620
 Wernigerode—Halberstadt—Spiegelberge—Gleim, the Poet, and Breyhahn, the Inventor of Beer—Kalbe, Barby, &c. 621
 Magdeburg—Public Buildings—La Fayette's Dungeon, 621

Trade—Burg, Stendal, &c.—General Remarks, 621
 Deaths and Births—Increase of Population—Illegitimate
 Children—Crimes, 622
 Murders—Thefts—Universities, 622
 Berlin Saving-Bank—Insurance against Fire—Commerce—
 Corn Trade, 622
 Imports and Exports—Wool—Sugar and Coffee, 623

*Statistical Table of the Kingdom of Prussia Proper, according
 to the Censuses of 1819 and 1821, as published by Hassel;
 and according to other more recent Authorities, 623*

Eastern Prussia—Western Prussia, 623
 Grand Duchy of Posen, 624
 Silesia, 624
 Province of Brandenburg, 624
 Pomerania, 625
 Province of Saxony, 625

*Number of Inhabitants according to the different Nations and
 Sects to which they belong—Number of Monasteries, Church-
 es, Universities and Schools. 626*

Eastern Prussia, 626
 Western Prussia, 626
 Grand Duchy of Posen, 626
 Province of Brandenburg, 627
 Pomerania—Province of Saxony, 627
 Prussian Army in 1820, 627
 Revenue and Expenditure in 1821, 627

BOOK CXVIII.

EUROPE CONTINUED.

*Agricultural Produce of the Maritime Provinces in Prussia.—
 Peasants.—Mortgages.—Landed Estates.—Method of Husban-
 dry.—Restrictions on the Foreign Corn Trade.—Depreciation of
 Landed Property.*

Maritime Provinces, 628
 Grain Exported—Landed Estates—Peasantry, 628
 Liberation of the Peasantry—Lands belonging to the Peasant-
 ry—Opinions concerning the New Enactments, 628, 629
 Wages, 629
 Division of Land, 629
 Crown Lands—Average Rent of the Royal Domains, 629
 Mortgages—Landschaft—Encumbered Estates, 630
 Low Value of Land—Live Stock, 630
 Course of Cultivation—Implements of Husbandry, 631
 Value of Live Stock, 631
 Spirits from Potatoes, 631
 Taxes, 631—633

Table of Grain, &c. Exported from East and West Prussia, and
 Pomerania, from 1816 to the commencement of 1825, 633, 634
 Comparative Table of Exportation and Importation from 1816
 to 1824, 634
 Table of the Average Prices of Corn in the Market of Berlin
 on St. Martin's day, from 1774 to 1824, 634

BOOK CXIX.

EUROPE CONTINUED.

*Description of Germany.—Third Section.—Grand Duchies of
 Mecklenburg and Oldenburg.—Kingdom of Hanover.*

Mecklenburg, Position, &c.—Ancient Inhabitants—Antiquity
 of the House of Mecklenburg—Historical Details, 635
 Soil—Lakes—Hills, 635
 The Heilige-Damm—Sands—Climate, Principal Productions, 636
 Territorial Division—Government—Marshals and Deputies, 636
 Peasantry, 636
 Landed Proprietors, 637

Religion—Grand Duchy of Strelitz—Old and New Strelitz, 637
 Grand Duchy of Schwerin—Schwerin, 637
 Trade—Revenue and Military Force—Grand Duchy of Hol-
 stein-Oldenburg, 637
 Ancient Inhabitants—Princes of Oldenburg, 638
 Soil—Precious Stones, 638
 Agricultural Produce, 638
 Wandering Peasants—Fishings, 639
 Climate—Language—Religion—Government—Justice, 639
 Oldenburg—Other Towns, 639

Principality of Lubeck—Principality of Birkenfeld—Towns—
 Birkenfeld—Oberstein—Cutting and Polishing of Agates, &c. 640
 Armed Force, Revenue, &c. 640
 Hanover—Ancient Inhabitants—Ancient Divinities, 640, 641
 Electors of Hanover—Soil, 641
 Fossil Wood—The Hartz, 641
 Etymology of its Name, 641, 642
 Bone-Caves, 642
 Witches' Fountain—Mines—Miners, 642
 Lakes—Climate—Diseases, 643
 Natural Productions—Fish—Forests—Animals, 643
 Mines—Agriculture—Horticulture, 643
 Manufactures—Commerce, 643, 644
 Population—Political Divisions, Governments, 644
 Religion—Ecclesiastical Property, 644
 Government—Administration of Justice—Standing Army—
 Landwehr—Towns, 644
 Hanover—Public Buildings—Different Establishments for
 Education, 645
 Commerce and Manufactures—Vicinity—Göttingen, 645
 University, 645
 Münden—Klausthal—Goslar—Hildesheim—Pillar of Ermen-
 sul, 646
 Celle or Zelle—Lunenburg, 646
 Stade—Embsen—Islands—Incursions of the Sea, 646
 Osnabruck, 647
 Finances, 647

BOOK CXX.

EUROPE CONTINUED.

*Germany.—Fourth Section.—Prussian Provinces of the Lower
 Rhine.—Principality of Neuchatel.—Reflections on the State of
 Prussia.*

General View, 648
 PROVINCE OF WESTPHALIA.—Ancient Inhabitants—Soil, 648
 Geology of the Country—Mineral Productions, 648
 Minden—Herford, 649
 Paderborn—Munster, 649
 Borlen, 649
 Arensburg—Soest—Hamm, 650
 Dortmund—Iserlohn, 650
 Other Towns—Mount Stalberg, 650
 PROVINCE OF JULIERS, CLEVES AND BERG—Ancient Inhab-
 itants—Ubii, 651
 Gugerni—Usipetes, 651
 Teucteri—Sicambri—Geology, 651
 Antiquities—Cleves or Kleve—Sacrum Nemus—Other
 Towns, 651, 652
 Xanten or Santen—Ulpia Castra—Vetera Castra—Colonia
 Trajana—Geldern or Gelders, 652
 Asciburgium—Dusseldorf, 652
 Different Quarters of the Town—Elberfeld, 652
 Neighbourhood—Solingen—Köln or Cologne—Public
 Buildings, 653
 Relics, 653
 Oppidum Ubiorum—Antiquities of Cologne—Historical Rec-
 ollections, 653, 654
 Trade—Buruncum—Tolbiacum—Bonn—Ara Ubiorum, 654
 Castrum Trajani, 654
 PROVINCE OF THE LOWER RHINE, 654
 Ancient Inhabitants—Eburones—Treveri—Their Govern-
 ment, 654

CONTENTS.

Manners and Customs—Appearance, Costume—Geology, . . . 655
 Volcanic Mountains—Eyfel-Gebirge—Heaths—Craters, . . . 655
 Juliers—Aix-la-Chapelle—Churches, . . . 655
 Relics—Neighbourhood, . . . 656
 Marcodurum—Eupen—Different Towns—Monument to General Hoche, . . . 656
 Coblenz, Confluentes—Andernach, Antunnacum, . . . 656
 Lake of Laache—Boppard, Baudobrica, . . . 657
 Treves—Antiquity of Treves—Roman Monuments, . . . 657
 Roman Bridge—Gate of Mars—Churches, . . . 657
 Neighbourhood—Monument at Igel, . . . 657
 Purpose for which it was erected—Different Towns—Pons Saravi, . . . 658
 Burning Hill—Circle of Wetzlar, . . . 658
 Town of Wetzlar—Small Detached Districts, . . . 658
 PRINCIPALITY OF NEUCHATEL—Soil—Produce—Climate, . . . 659
 Industry, . . . 659
 Ancient Inhabitants, . . . 659
 Town of Neuchatel—Lake of Neuchatel, . . . 660
 Other Towns—Causes of Prosperity, . . . 660
 Language—Government—Liberty, . . . 660
 General Remarks, . . . 660, 661

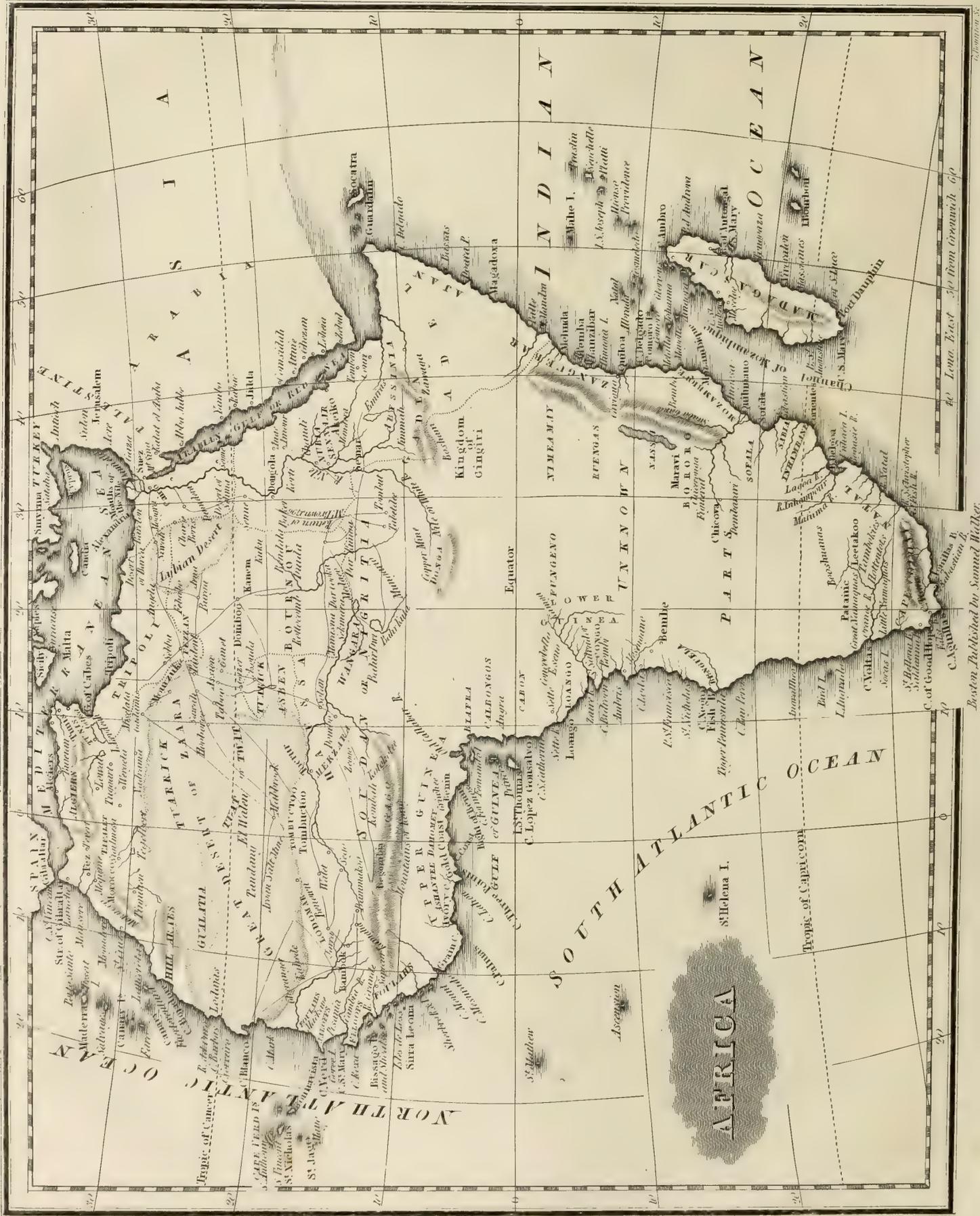
BOOK CXXI.

EUROPE CONTINUED.

Germany.—Fifth Section.—Kingdom and Dutchies of Saxony; Electorate of Hesse; Grand Dutchies of Hesse-Homburg and Hesse-Darmstadt; Principalities of Lippe-Detmold, Lippe-Schaumburg, Schwarzburg-Sondershausen—Schwarzburg-Rudolstadt and Reuss; Dutchies of Anhalt-Dessau, Anhalt-Bernburg, Anhalt-Kœthen and Brunswick; Principalities of Waldeck and Nassau.

ANCIENT Inhabitants, . . . 662
 Cherusci—Chassuarii—Catti, . . . 662
 Account of the Catti by Tacitus—Sedusii, Sorabi and Suevi, . . . 662
 Saxons, . . . 663
 KINGDOM OF SAXONY, . . . 663
 Surface—The Erz-Gebirge—Geological Structure, . . . 663
 Anthracite—Mines, . . . 663
 Climate—Agricultural Produce—Produce of the Mines, . . . 664
 Manufacturing Industry—Societies for the Encouragement of Manufactures, . . . 664
 Commerce—Government, . . . 664
 Revenue—Army—Language—Religion—Population, . . . 664
 Dresden—Churches—Other Buildings, . . . 665
 Capture by Frederick, . . . 665
 Leipsick—Theatre, &c.—University, . . . 665, 666
 Chemnitz—Plauen—Freyburg, . . . 666
 Kœnigstein—Schandau—Zittau—Bautzen, . . . 666
 DUTCHIES OF SAXONY, . . . 666, 667
 Grand-Dutchy of SAXE-WEIMAR—Geology, . . . 667
 Towns—Weimar Neighbourhood—Apolda—Jena, University—Eisenach—Dependencies—Industry—Revenue—Army, 667

Government, . . . 668
 Dutchy of SAXE-MEINUNGEN—Dutchy of SAXE-ALTENBURG—Dutchy of SAXE-COBURG-GOTHA, . . . 668
 Geological Structure—Country of Sonnenberg—Its Industry, . . . 668
 Towns—Gotha—Coburg—St. Wendel, . . . 669
 ELECTORATE OF HESSE—Geology—Heights of the Mountains—Volcanic Mountains—Mount Meisner, . . . 669
 M. Daubuisson's Description, . . . 669
 Organic Remains—Fossil Fish—Mineral Productions, . . . 670
 Climate—Agricultural Produce—Products of Manufacturing Industry, . . . 670
 Council of Arts and Trades,—Commerce—Government, . . . 670
 Religion—French Emigrants—Jews—Censorship, . . . 671
 National Property—Revenue and Debt—Army, . . . 671
 Towns—Cassel, the Capital, . . . 671
 Marburg—Smalcalden, . . . 672
 Fulda, Convents—Country of Fulda, Wines—Hanau, . . . 672
 LANDGRAVIATE OF HESSE-HOMBURG—Population—Extent—Revenue—Productions—Town of Homburg, . . . 672
 GRAND DUTCHY OF HESSE-DARMSTADT—Extent—Population—Divisions—Soil, . . . 672, 673
 Industry—Religion, . . . 673
 Government—Revenue—Army—Education, . . . 673
 Provinces—Towns in Upper Hesse—Giessen, University, . . . 673
 Towns in Starkenburg—Darmstadt—Offenbach—Towns in the Province of the Rhine—Bingen—Worms—Borbetomagus, . . . 674
 Mayence or Mentz—Public Buildings and Establishments, . . . 674
 Neighbourhood, . . . 674
 PRINCIPALITY OF LIPPE-DETMOLD—Soil—Industry, . . . 674
 Revenue—Reigning Family, its Origin, . . . 675
 Towns—Detmold—Lemgo—Lippstadt, . . . 675
 PRINCIPALITY OF LIPPE-SCHAUMBURG—Soil—Government—Towns, . . . 675
 PRINCIPALITY OF SCHWARZBURG-RUDOLSTADT—Soil—Government—Towns—Rudolstadt, . . . 675, 676
 PRINCIPALITY OF SCHWARZBURG-SONDERSHAUSEN—Towns, 676
 PRINCIPALITIES OF REUSS, . . . 676
 Reuss-Greiz—Reuss-Schleitz, . . . 676
 Reuss-Lobenstein-Ebersdorf—Town of Gera, . . . 676, 677
 Revenue, . . . 677
 DUTCHIES OF ANHALT—House of Anhalt, . . . 677
 Dutchy of Anhalt-Dessau—Soil—Agriculture—Manufactures, &c. 677
 Towns, . . . 677
 Dutchy of Anhalt-Bernburg—Soil—Towns, . . . 677
 Dutchy of Anhalt-Kœthen—Town of Kœthen, . . . 678
 DUTCHY OF BRUNSWICK—Geology—Mines—Agriculture—Manufactures, . . . 678
 Origin of the Ducal Family—Towns—Brunswick, . . . 678
 Spinning-wheel invented—Wolfenbüttel—Other Towns—Blankenburg, . . . 679
 PRINCIPALITY OF WALDECK—Surface, . . . 679
 Productions—Revenue, . . . 679
 Towns—Pyrmont, . . . 679
 DUTCHY OF NASSAU—Resources, . . . 679
 Geology—Productions—House of Nassau, . . . 680
 Towns—Wisbaden, the Capital, . . . 680



Boston, Published by Sumner Walker.

40° Long. East. 30 from Greenwich 60

SYSTEM

OF

UNIVERSAL GEOGRAPHY.

BOOK LIX.

AFRICA.

A General View of this Division of the World and its Inhabitants.

BEGINNING with the west of Asia, the ancient cradle of history, we have gone over the whole of that great continent to its eastern limits, which were unknown to the ancients. We then embarked on the Great Ocean, and visited the numerous and interesting islands of Oceanica, a part of the world entirely new, and which might be viewed as an immense archipelago annexed to Asia. Fronting Oceanica on the west, a vast peninsula goes off from the body of the Asiatic Continent. This peninsula forms likewise one of the great divisions of the world, and one which is particularly well characterized. AFRICA, on the description of which we are now to enter, will not present to us a new and unlooked for territory, where the European traveller, falling in with a numerous succession of feeble savage tribes, gives to his discoveries names borrowed from the recollections of his native country. Africa, the shores of which our ships have been for three centuries in the habit of coasting, has been known to history for 3000 years. Yet notwithstanding its ancient celebrity, and notwithstanding its vicinity to Europe, it still in a great measure eludes the examination of science. It was from the African shores that the Egyptian colonies, in the most remote times, brought to savage Europe the first germs of civilization. At the present day, Africa is the last portion of the old world to receive from the hands of the Europeans the salutary yoke of legislation and of culture.

If Africa has remained so long inaccessible to the ambition of conquerors, to commercial enterprize, and to the curiosity of travellers, we shall find in its physical form the principal cause of its obscurity. A vast peninsula, 5000 miles in length, and nearly 4600 in breadth,^a presents, in an area of nearly 13,430,000 square miles,^b few long or easily navigated rivers. Its harbours and roadsteads seldom afford a safe retreat for vessels, and no gulf or inland sea opens the way to the interior of this mass of countries. The Mediterranean on the north, by which it is separated from Europe, and the Atlantic and the Ethiopic Oceans, which encompass it on the west, form inconsiderable ine-

qualities in the line of coast to which the name of gulfs is improperly given, viz. the Gulf of Guinea in the south, and that of the Syrtes in the north, both held in dread by navigators. The breadth of the continent, between the bottoms of these gulfs, is still 1800 miles.^c The coasts of Senegal and Guinea, indeed, present several mouths of rivers accompanied with islands; and were it not for the barbarous character of the people, these would be the most accessible parts of Africa. To the south, however, the continent resumes its usual appearance, and terminates in a mass of land without any deep windings. To the east a number of islands, and some mouths of rivers, seem to promise a readier access. The coast washed by the Indian Ocean lies low, like the opposite shores of Guinea, but we find only a short way in the interior the formidable terrace of arid mountains which forms the eastern extremity of the continent. In the north-east the Arabian Gulf separates Africa from Asia, without breaking the gloomy uniformity of the African coast.

This large continent has its outline marked by four great promontories. Cape Serra in the north projects into the Mediterranean. Cape de Verde points due west into the Atlantic Ocean. Cape Guardafui receives the first rays of the rising sun. The Cape of Good Hope makes a long excursion into the southern hemisphere. On three other remarkable points Africa comes close up to the rest of the old continent. In the north-west the narrow Strait of Gibraltar divides it from Europe. In the east Arabia is separated from it by the Strait of Bab-el-mandeb. In the north-east the low sandy Isthmus of Suez connects it with Asia.

In some parts excessively parched, in others marshy or flooded, the soil of Africa presents strange contrasts. At great mutual distances are some large and beneficent rivers, as the Nile in the north-east, the Senegal and Gambia in the west, the Zaire in the south-west, the Cuama on the eastern coast; and, in the centre, the mysterious Niger, which conceals its termination as the Nile used to conceal its origin.^d More frequently we find small and short streams, such as all the rest, with the exception of ten or twelve.

truth, the most correct expression, as the principal source is as yet only matter of conjecture. The source, visited by Bruce, is only one of its subordinate branches.—P.

^a 1820 French leagues by 1650.

^b 1,750,000 sq. Fr. leagues.

^c 650 Fr. leagues.

^d In the original, "as the Nile conceals its source." This is, in

Almost all these rivers contain cataracts in their course, and present bars or sand banks at their mouths. In the interior, and even on the coast, there are great and lofty rocks, from which no torrents proceed; and table-lands watered by no streams, as the great desert of Zahara, and others of minor extent. Again, there are countries constantly impregnated with moisture, as those which contain the lake or marsh of Wangara, and the lake Maravi,^a and some temporary lakes occasioned by the rising of the rivers. These features constitute the hydrography of this part of the world.

When we attend to the structure of the mountains, other singularities come into view.^b Though Africa very probably has mountains high enough to be covered with perennial snow even under the equator, that is, 16,000 feet^c in elevation, it is, in general, to be remarked, that the African chains are more distinguished for their breadth than for their height. If they reach a great elevation, it is by a gradual rise, and in a succession of terraces. Perhaps we should not deviate far from truth, if we were to venture the assertion, that the whole body of the African mountains forms one great plateau, presenting toward each coast a succession of terraces.^d This nucleus of the African continent seems to contain few long and high ranges in the interior, so that if the sea were to rise three or four thousand feet above its present level, Africa, stript of all the low lands which line its shores, would appear almost a level island in the midst of the ocean.

None of the known chains of Africa are adverse to this view of its surface. Atlas, which lines nearly the whole of the north coast, is a series of five or six small chains, rising one behind another, and including many table lands. The "littoral chain of the Red Sea," or the Troglodytic Chain, resembles Atlas in its calcareous steeps,^e so imposing to the eye of the traveller, yet really of very moderate height. The Chain of Lupata, "or the Spine of the world," which seems to reach from Cape Guardafui to the Cape of Good Hope in a direction not well known, contains the plateaus of Adel and Mocaranga; it terminates in the south in high and barren plains, called the Karroos, and in steep mountains with flat summits, one of which has received the significant name of the Table Mountain. This chain seems then to resemble the preceding two. The rivers of Guinea descend in a series of cataracts, not in long and deep valleys. This is the usual character of calcareous mountains, formed into terraces, and such seems to be the nature of the Kong mountains.

There is just one fact which may be opposed to us with some appearance of reason. We are told that "a very high central chain crosses Africa from east to west, beginning at Cape Guardafui and ending about Cape Sierra Leone; comprehending the Kong mountains, and the Mountains of the Moon, which lie to the south of Abyss-

nia. But the extension thus given by Major Rennel to the Mountains of the Moon, would not be inconsistent with the views now given. Africa would still be a plateau consisting of terraces; the plateau would only be cut in two by a sort of wall. But we do not, by any means, admit the existence of that high central chain. It is true that the nucleus of mountains which gives origin to the Senegal, the Gambia, the Mesurada, and the Joliba or Niger, gives off, among other branches, one which has an easterly direction, and which partly separates the basin of the Niger from the coast of Guinea. This is the chain called the Mountains of Kong, on the southern declivities of which rise the Rio-Volta and some other rivers of Guinea.^f But the learned Rennel has stretched his conjectures too far, in pretending to connect this chain to that of the Mountains of the Moon on the south of Abyssinia. May not these mountains be lost in the central plateau of south-eastern Africa? or, if they are extended to the west, may they not terminate about Cape Lopez-Gonsalvo, opposite to St. Thomas's Island? The following facts render this supposition very probable.

At Darfoor, the south winds are the hottest and driest, and bring along with them clouds of dust. This shows that there is no high chain of mountains immediately to the south of Darfoor. The Mountains of the Moon must be removed farther to the south and to the east, and the south winds of Darfoor must sweep over a sandy, though, perhaps, somewhat elevated plain.^g

The passages of Ptolemy and Leo Africanus, which seem to describe a central chain, prove nothing. The first of these authors mentions several detached mountains without saying any thing of their extent. Leo says that the inhabitants of Wangara cross very high mountains when they go in search of gold dust.^h But the position of these mountains is not defined any more than the country of Zegzeg, the inhabitants of which require large fires to protect them from the cold.ⁱ Even Major Rennel thinks that the mountains last referred to must lie to the north of the Niger.

The prodigious numbers of slaves which come to Benin show that there is an open and easy communication with the interior. The slaves of the Ibbo nation perform a journey of seven months through forests and morasses.¹ It is even probable that, in the sixteenth century, the king of Benin was subject to the king of Ghana, a city situated on the Niger,^m a circumstance which implies easy inland communications. Is it not also probable that the Niger, or some other river from the interior, flows into the most easterly corner of the Gulf of Guinea? Such large gulfs as this have generally some great river falling into their further extremity. The rivers which traverse Benin and Calabar seem to be arms of some great river. We are indeed told, that this appearance of great size is confined

^a "Which are supposed to contain." These lakes belong to the conjectural geography of Africa. That of Wangara is located in the countries visited by Denham and Clapperton, and is perhaps the Tsad.—P.

^b See the views of the celebrated M. Lacepede, in the *Annales du Muséum d'Hist. Nat.* vol. vi. p. 284.

^c At least 15,577 feet.—P.

^d "Which, on all sides, presents continuous terraces," *i. e.* each terrace traces an uninterrupted line, or nearly so, around the entire plateau.—P.

^e "Falaisea," bluffs.

^f Besides the mountains of Kong, which form the S. boundary of the basin of the upper Niger, there is another range which sweeps round the sources of the Gambia and Senegal to the N. E. and W. of N. and

which forms the N. W. boundary of the same basin. It is probable the source of the Niger is not far in the interior from the coast of Sierra Leone.—P.

^g "A sandy plateau."

^h Immediately to the south of Bornou is a range of primitive mountains, extending E. and W.; and the country between Bornou and Soudan, and which probably separates the basin of the Tsad from that of the Niger, is also primitive.—P.

ⁱ Leo Africanus, p. 329, de la traduction de Jean Temporal.

^k In crossing from Bornou to Soudan, Lieut. Clapperton suffered considerably from the cold, and a thin film of ice was formed in his water-bags.—P.

^l Oldendorp. See our Account of Guinea, in the sequel.

^m Barros, Dec. I. liv. 3. ch. 4.

to the low lands immediately on the shore, but we have hitherto no accounts from any traveller who has actually ascended them, and the hypothesis has been advanced and plausibly supported, that the Niger terminates here.

The principle which we have now defended is susceptible of some interesting applications. If Africa is one immense flat mountain, rising on all its sides by steps or terraces, we easily conceive that it will not give origin to such narrow pointed peninsulas, or such long chains of islands, as those by which other continents are terminated. These peninsulas and chains of islands are submarine prolongations of the mountain chains extended across the continents.^a In Africa nothing similar appears, excepting the Canary islands.^b The mountains lying parallel to the coast have scarcely any submarine continuation. A sea, clear of islands, washes a coast marked by an even, unnotched line. The great island of Madagascar, on the east, is not a prolongation of the continent, but follows a direction parallel to that of the coast.

If we turn our attention to the interior of Africa, the same principle makes its appearance in the vast plains which occupy the greater part of its extent. Some covered with sand and gravel, with a mixture of sea shells, and incrustated with saline crystallizations, look like the basins of evaporated seas. Such is the famous desert of Zahara, where the sands, moving like the waves of the ocean, are said to have sometimes swallowed up entire tribes. Others, of a marshy nature, and filled with stagnant lakes, emit effluvia the most destructive to human life, or breed disgusting reptiles, and formidable animals of huge size. Neither in the one nor the other do rivers find descent or outlet. They either terminate in lakes, or are lost in the sands. Many of the smaller streams never unite to form permanent currents, but disappear with the rainy season, to which they owe their origin. Africa contains an infinite number of these torrents and rivers which never reach the sea. Some of them have a long course, and rival the greatest rivers in the world. Such is the Niger or Joliba, unless it has an outlet, as yet unknown, in the Gulf of Guinea. After it come the river of Bornoo and the Kullah; the Misselad in Nigritia; and the Djedyd, in the Zab country, belonging to the Algerine states. Many of these rivers must form lakes or small inland seas, probably equalling the sea of Aral.^c The heat which rapidly dries up the waters, the bibulous quality of the soil which absorbs them, and, still more, the absence of great inequalities, or extensive hollows, prevents the African table land from possessing another Caspian Sea.

Lake Maravi gives some reason to suppose that there may be a second Niger in the interior of eastern Africa. The other rivers of this continent, such as the Senegal, the Gambia, the Zaire, and the Orange river on the western coast, the Zambezi, or Cuama, and the Makadshec on the eastern coast, and lastly the Nile, which surpasses the others, and which is the only one that runs north into the Mediterranean, all possess a character of resemblance depending partly on the climate of the torrid zone, and partly on the structure of the plateaus in the heart of Africa. This resemblance consists in the periodic swells, by which these rivers overflow the countries through which they pass, and particu-

larly those by which their mouths are surrounded. These risings differ in nothing from the floods of our European streams, except in their regular annual return, in the large volume of water which they bring along with them, and the great quantity of mud which they deposit. It is well known that the rainy season, which, over the whole torrid zone, is synchronous with the vertical position of the sun, brings on almost continual drenching rains. The heavens, formerly burning like a flame, are transformed into a great atmospheric ocean. The copious waters which they pour down collect on the table lands of the interior, where they form immense sheets of water, or temporary lakes. When these lakes have reached a level high enough to overflow the boundaries of their basins, they suddenly send down into the rivers, previously much swollen, an enormous volume of water, impregnated with the soft earth over which it has for some time stagnated. Hence the momentary pauses and sudden renewals in the rise of the Nile. Hence the abundance of fertilizing slime, which would not be found so copious in the waters of rivers which owed their rise solely to the direct influence of the rains. These phenomena, simple in their origin, only astonish persons who have observed the effects without tracing their cause.

The general climate of Africa is that of the torrid zone; more than three fourths of this continent, (ten thirteenths at least) being situated betwixt the tropics. The great mass of heated air, incumbent on these hot regions, has ready access to its northern and southern parts situated in the zones called temperate, so that the portions of them adjoining the tropics are equally torrid with the regions actually intertropical.^d Nothing really moderates the heat and dryness of the African climate, except the annual rains, the sea breezes, and the elevation of the surface. These three circumstances are sometimes united in a greater degree under the equator than in the temperate zones. Such parts of the interior of Guinea, Nigritia, or Abyssinia, as fall under this description, enjoy a temperature much less scorching and dry than the sandy deserts on the south of Mount Atlas, though the last are thirty degrees from the equator. It is not impossible that in the centre of Africa there may be lofty table-lands like that of Quito, or valleys like the valley of Cashmere, where, as in those two happy regions, spring holds an eternal reign.

There is another general cause which influences the climate of Africa less than might be expected. The greatest cold of the southern hemisphere is felt only on the southern shores, and is confined to a very small portion of the year. The saline and arid character of the lands of the southern extremity resembles, in some measure, that of the coasts of Zahara and of Ajan.

Nowhere do the empire of fertility and that of barrenness come into closer contact than in Africa. Some of its countries owe there fertility to high wooded mountains moderating the heat and dryness of the atmosphere. More frequently the fertile lands, bounded by vast deserts, form narrow stripes along the banks of the rivers, or alluvial plains situated at their mouths. These latter, generally contained between two branches of the river diverging to form a triangle, have, from their figure, received the name of Delta, from the fourth letter of the Greek alpha-

^a Not the peninsulas: though these may be the commencement of such prolongations.—P.

^b Which may be a continuation of the chain of Mount Atlas.—P.

^c Such is the Tsad in Bornou.

^d In the original simply, "situated nominally in the temperate zones;" thus inferring that the climate is really that of the torrid zone.—P.

bet, which is a triangle. The term has been, by way of eminence, given to the flat island formed by the Nile in Lower Egypt. Another class of fertile lands owe their existence to springs, which here and there burst forth in the midst of deserts. These spots of verdure are called *Oases*. Even Strabo mentions them, when he says, "To the south of Atlas lies a vast desert of sand and stones, which, like the spotted skin of a panther, is here and there diversified by *oases*; that is to say, by fertile grounds, rising like islands in the midst of the ocean."

It is to these contrasts that Africa owes its twofold reputation. This land of perpetual thirst, this arid nursery of lions,^a as it was called by the ancients, was, at the same time, represented under the emblem of a woman crowned with ears of corn, or holding ears of corn in her hand.^b Although the character of high fertility belongs especially to the *Africa propria* of the ancients, that is, the present state of Tunis, it is certain that in this part of the world, wherever moisture is conjoined with heat, vegetation displays great vigour and magnificence. The human species find abundant aliment at a very insignificant expense of labour. The corn stalks bend under their load; the vine attains a colossal size; melons and pumpkins acquire enormous volume; millet and holcus, the grain which is most common over three fourths of this continent, though badly cultivated, yield a return of one or two hundred fold; and the date tree, which is to the African what the cocoa nut and the bread fruit are in Oceanica, can withstand the fiery winds which assail it from the neighbouring deserts. The forests of Mount Atlas are equal to the finest of Italy and Spain. Those of the Cape boast of the silver leaved *Protea*, the tree heath, and other elegant trees. In the whole of Guinea, Senegambia, Congo, Nigritia, and the eastern coast, formerly denominated India, are to be found the same thick forests as in America. But in the parts which are marshy or arid, sandy or rocky, that is, in one half of Africa, the natural vegetation presents a harsh and uncouth physiognomy. Scattered tufts of saline plants diversify a plain which has no green sod to clothe its nakedness; thorny shrubs, *Mimosas*, and *Acacias*, present impenetrable thickets. *Euphorbiae*, *Cacti*, and arums, fire the eye with their stiff and pointed forms. The enormous baobab, and the shapeless dragon tree, are void of grace and majesty. The fruit of the theobroma, finding its way outward through the bark of the trunk, a bark of a blackened and scorched appearance, seems affected by the same power of solar heat which has impressed the most sombre hues on the skin of the negro.

The animal kingdom presents still greater variety, and more originality. Africa possesses most of the animals of the old continent, and in some species possesses the most vigorous and the most beautiful varieties. Such are the horse of Barbary, the Cape buffalo, the Senegal mule, and the zebra, the pride of the asinine race. The African lion is the only lion worthy of the name. The elephant and the rhinoceros, though of less colossal dimensions than those of Asia, have more agility, and perhaps more ferocity; yet the African elephant is said to fly at the sight of that of Asia. Several very singular animal forms appear to be

peculiar to this part of the world. The unwieldy hippopotamus inhabits the south, from the Cape of Good Hope, to Egypt, and the Senegal. The majestic giraffe, the prototype of the *Seraphim* which the Arabian mythology yoked to the chariot of the lord of thunder, roams from the Niger to the Orange River. The gazelle, or antelope genus, peoples Africa with numerous species and varieties, some lighter and handsomer than others, and perhaps all different from those of the table-land of Asia. Following the same principle, Africa, filled with monstrous apes^c and disgusting baboons, is probably deficient in many species of monkeys which seem reserved for Oceanica, as the orang-outang;^d or for America, as the sapajous. The winged race of Africa is equally peculiar. The flamingo, in his scarlet robe, the parrot, clad in emerald and sapphire hues, the egret, of elegant plumage, might have imparted sufficient interest to the descriptive pen of Vaillant, though he had added no imaginary birds. The ostrich is peculiar to Africa, as the cassowary is to Oceanica, and the rhea, or touyou, to South America; but, among the walking birds, which have no true wings,^e that of Africa is the largest and most perfect. We reserve for our special delineations other researches, which will confirm the old adage, "that Africa was always furnishing natural history with some new animal;"—researches which will give a probability to the existence of some extraordinary animals, celebrated in all the writings of antiquity, while modern criticism, perhaps too sceptical, has assigned them a place among the creations of fable.

The inconveniences and calamities occasioned by venomous or voracious reptiles, are not peculiar to Africa; the whole torrid zone has its serpents, its scorpions, its crocodiles, or other equivalent species. But nowhere else, except in New Holland, do the *termites* build so many destructive nests. The swarms of locusts of Asia are much less thick and extensive than those of Africa, where whole tribes of men use them as food.

To conclude our picture, we find the human species in this part of the world exhibited in a new light. The Africans seem to form three races which have long been distinct. The Moors are a handsome race, resembling in stature, physiognomy, and hair, the best formed nations of Europe and Western Asia, though darkened by the influence of climate. To this race belong the Berbers or Kabyls, and the other remains of the ancient Numidians and Gætuli. They bear a great similarity to the Arabians, from whom they received in the seventh century numerous colonies. The Copts, Nubians, and Abyssinians, cannot well be considered as originally a distinct race, being probably sprung from a very ancient mixture of Asiatic and African nations. The second race is that of the Negroes, whose general characteristics are universally known. It occupies all the centre, and all the west from Senegal to Cape Negro, and has found its way into Nubia and Egypt. The third race is that of the Caffres, which occupies all the eastern coast, distinguished from the negroes by a less obtuse facial angle, a convex forehead, and a high nose; but approaching them in their thick lips, their curled and almost woolly hair, and a

^a "Sittientes Afros."—Virgil. "Leonum arida nutrit."—Horace.

^b Bochart, Canaan, l. ch. 25.

^c "Guchons," (Cercopithecus) tailed apes.—P.

^d The orang-outang is said by some authors to be a native of W. Africa. Species, having a similar character, are found both in Africa and the E. Indies; but after an attentive examination, Cuvier pro-

nounces them distinct. He gives to the African species the name *a*. Chimpanzee, and restricts that of *orang-outang* to the species inhabiting the E. Indies.—P.

^e "Oiseaux marcheurs, depourvus des veritables ailes," the *echasiers brcoipennes* of Cuvier, or that division of the order Grallæ, or walkers, whose wings are of no use for flight.—P.

complexion varying from a yellow brown to a shining black.

Besides these great races, Africa contains some tribes of a character quite peculiar, which they derive either from some unknown original, or from the influence of climate. The Hottentots are the most conspicuous example, but we shall find some others in the course of our particular details.

The languages of Africa must, according to M. de Seetzen, amount to 100 or 150. They differ from one another in a most striking manner, and have so few features of mutual resemblance, that the attempts made to classify them have proved fruitless. The Berber language has indeed been traced from Morocco to Egypt. The three negro languages of Mandingo on the upper Senegal, of Amina on the Gold coast, of Congo on the Congo coast, seem to be extensively diffused; and the same may be said of the Betjouana Caffre. But the general character of Africa in this respect is still that of a multitude of confined idioms which seem to comprehend many sounds scarcely articulate, some that are very strange, sometimes howlings, sometimes hisses, contrived in imitation of the cries of animals, or intended as watchwords to distinguish hostile tribes from one another. This fact perplexes those who consider the unity of the human race as a demonstrable historic truth; but it appears to us that in Africa and every where else, true history, going back to the most remote times, finds the human species, like the plants and animals, disseminated over the surface of the globe, and divided into numberless small tribes or families, each speaking a peculiar idiom, imperfect and often singularly distorted. The artificial combination of these primitive jargons has given origin to the regular languages which probably began with the formation of cities.

Civilization, which has furnished man with abstract and general ideas, has followed in Africa a singular progress, dictated by the climate and by the character of the most numerous indigenous race. This progress may be distributed into the following epochs.

Living in abundance, but separated from one another by deserts; surrounded by copious and excellent food of spontaneous growth, but encountering prodigious obstacles in all their attempts at artificial culture; enjoying a climate which required no clothing to protect them from cold, and only needing a cover to shelter them from rain, the Negro (called the Ethiopian by the ancients,) and probably also the Caffre or Troglodyte, never felt that stimulus of necessity which creates industry and reflection. Enjoying a wild happiness of condition, they satisfied the demands of sense, and scarcely possessed any notion of an intellectual world. But they felt the presence of an invisible power. They looked for its residence in the tree which gave them food, in the rock which shaded them, in the serpent which they dreaded, and even in the monkeys and parrots which sported around them. Some believed that a piece of wood, or a fragment of stone, was the seat of a supernatural power: they were delighted to think that their deities could be carried along with them in all their motions. This system, which is called *fetichism*, and which is the rudest form of *pantheism*, seems common to every climate and to every race: but it prevailed to the exclusion of every other in Africa, and especially among the negroes.^a These superstitions were merely ridiculous.

Vengeance and brutality, however, gave birth to others of a horrible and atrocious nature. The prisoner of war from an adjoining tribe was sacrificed on the tombs of those against whom he had fought. Believing in the necessary connection between moral powers and visible objects, these barbarians were persuaded that by devouring the bodies of their enemies, they became imbued with the courage of the deceased. Cannibalism, arising from the rites of the hideous altar, and at first limited to these rites, was soon converted into a capricious taste—a demand of luxurious appetite. Vanquished tribes thought themselves fortunate in being reduced to slavery, instead of being devoured; but their masters sold their persons like cattle. In the meantime, the Berbers or Moors, proud of a little superiority over these degraded beings, hunted them down like wild beasts, and wrought them like domestic animals. Such may be considered as the primitive state of the Africans, and it still in some measure subsists.

Afterwards came some beneficent impostors, who altered the face of things. Several dynasties of royal high priests^b erected temples at Meroë, at Thebes, and at Memphis, which became the asylum of peace, the focus of the arts, and the resort of trade. The savage, attracted by curiosity, and enslaved by superstition, bowed down before the statue of a god with a dog's head, or the beak of a bird, emblems which formed improvements on his rude *fetiche*. At the command of the servants of the gods, a multitude which scarcely possessed cabins of palm trunks for themselves, cut the granite into columns, carved hieroglyphics on the porphyry, and by persevering labour completed monuments which have stood undecayed for ages. Nor were works of utility neglected. The sacred water of the Nile, confined by dykes, and distributed by canals, fertilized the plains which had previously been overrun with reeds and rushes. Caravans, protected by the name of the deities, ascended the Nile, and penetrated to the remotest valleys of Ethiopia, collecting gold and ivory, and spreading every where the germs of new religions, new laws, and new manners.

At Memphis, Thebes, and Meroë, the caste of warriors rebelled against the pontiffs. The gentle illusions of theocracy were succeeded by revolutions, wars, and agitations, at the despotic court of the Pharaohs. Notwithstanding events of this kind, Egypt long continued a great and flourishing empire, but was less fortunate as to any influence on the civilization of the rest of Africa.

Carthage had founded another empire in the west. Her hardy sailors, and her enterprising merchants, reached as far as Cape Blanco by sea, and her inland travellers reached the Niger by land; but the only means which they possessed for subjugating nations were their armed force, and the attractions of certain articles of commerce. Intimately connected with the Berber or Moorish people, whose talents for war they brought into activity by raising among them light troops for their own service, they exercised only an indirect influence on the Ethiopians or the negroes. This race of men, left to themselves, confined their exertions to gathering from the earth simple aliments of easy culture. The government of petty despotic patriarchs gave place to more extended monarchies. In the mysterious associations of Guinea, the spirit of the priests of Meroë was seen to revive. The most essential change which the civil constitution of Africa underwent, was the distinction established between free-men and slaves. That dis

^a See afterwards our account of Nigritia.

^b "Pontifes-rois," Pontiff-kings.

tion existed among the Greeks and the Romans with features equally odious and inhuman as in Africa. But, while Christianity abolished it in Europe, in Africa it has been perpetuated.

Beyond the limits of their own empire, the Romans had no direct relations with any people except the inhabitants of Fezzan and of Nubia, and, at a very late period, with Abyssinia, or the kingdom of Axum. Nor did Christianity succeed in shedding her light on the west, the centre, and the south of Africa. Her benefits, which were spread over the north, disappeared under the effects of disastrous wars. To Mahometanism was reserved the task of effecting a change in African civilization. The fanatic Arab, mounted on the active dromedary, or embarked in light vessels, flew to plant the standard of his prophet on the banks of the Senegal, and on the shores of Sofala. Never did a people possess a union of qualities better adapted for conquering and preserving the empire of Africa. Among the Mauritians and Numidians they found brothers and natural friends; an identity of manners, food, and climate. The fanatic mussulman spirit astonished and subdued the ardent imaginations of the Africans; the simplicity of the creed suited their limited intellect, and easily connected itself with the superstitions of fetichism, and the ideas which these people entertained of magic and enchantments. Africa, and especially the *Oases* of the Great Desert, soon furnished the new religion with its most zealous defenders. Civil slavery and despotic government suffered no change, except that the *Marabouts*, or Mussulman priests, and the *Sherifs*, or descendants of the prophet, formed, in some of the states, a species of aristocracy. Cannibalism alone was of course abolished, and that was a real benefit which humanity received at the hand of Islamism.^a One event favoured, for a moment, the civilization of the Moors. The expulsion of those of their number who had ruled in Spain peopled Barbary, and even the *Oases* of the great desert, with a more industrious and better informed race than the rest of the Mahometans. But, unhappily for Africa, a handful of Turkish adventurers, vying with one another in ferocity and ignorance, established themselves on the coast of Barbary, subdued the Moors, and founded the barbarous governments of Algiers, Tunis, and Tripoli, forming a deadly barrier, more efficient than Mahometanism itself, in separating Africa from the civilized world.

^a M. de Hammer, *Mémoire sur l'influence du Mahométisme, dans les Mines de l'Orient, et dans les Annales des Voyages.*

^b See the interesting work of M. Grégoire, formerly Bishop of Blois, on the Literature of the Negroes.

^c The author, in the original, expresses an opinion that, from the

The voyages of the Portuguese, and the slave trade, subsequently opened new communications between Africa and the west of Europe. These countries were found, as they still are, distracted by perpetual war, a war so much the more deplorable, because, being confined to a system of cruel robbery, without the spirit of territorial conquest, it does not give birth to those great empires which sometimes admit a species of civilization. A lengthened observation of the character of the Africans has made us acquainted with their virtues, their docile dispositions, and their versatility in imitating our arts. Sufficient proof is obtained that there is nothing in their moral nature which condemns them to perpetual barbarism.^b Europe, occupied with the East and West Indies, has paid comparatively little attention to a country nearer home, and perhaps more wealthy than those others. Hence our relations with the African coasts have been long confined to that traffic in human beings which is reprobated both by religion and philosophy, and only justified by a fallacious reference to adventitious circumstances, from which this traffic appears to operate as a corrective of greater disorders and inhumanity. These circumstances are many of them the creation of this infamous traffic itself, which debases and brutalizes the miserable natives, as has been amply proved by a comparison between the state of the same countries before and since the late partial abolition, and under the temporary revivals of the same disgraceful inhumanity to which individual avarice has, in some places, given rise. That the utter abolition of the slave trade will ever be the cause of the revival of cannibalism and human sacrifices, as some have ventured to predict,^c is impossible. Moral practices, as well as physical population, do not, in Africa, depend on causes different from those which regulate them in France or England. The introduction of knowledge and enlightened habits is the great engine by which we hope to see Africa made to hold a respectable rank in the scale of human society. The colonies established on its shores, and the efforts made to open a legitimate and beneficial trade between Africa and the civilized world, will, it is hoped, excite in the minds of its inhabitants a due esteem for regular laws and civilized manners, and induce them either to emulate them by efforts of their own, or to submit to receive from others these benefits in exchange for the miseries of a wretched independence.

great increase in the number of prisoners, in consequence of the abolition of the slave trade, it would, perhaps, be followed by the horrible massacres and human sacrifices which still prevail in the interior. Such a waste of life has been noticed in Ashantee; but nothing of the kind was observed in the countries visited by Denham and Clapperton. P

BOOK LX.

EGYPT.

PART I.

A Physical Description of this Country.

EGYPT is the connecting link between Africa and the civilized world. This country, unique in its nature and in its historical records, deserves a more minute description than the other countries of Africa. Egypt consists entirely of a valley, watered by the Nile, by which it has in part been formed; and confined, on the right and left, by a barren expanse of deserts. The physical picture of this country, therefore, will be introduced, with an account of the Nile, whose bounties render Egypt independent of all foreign supplies, and even of the rains of heaven.

The Nile, the largest river of the old world, still conceals its true sources from the research of science. At least, scarcely any thing more of them is known to us now than was known in the time of Eratosthenes. That learned librarian of Alexandria distinguished three principal branches of the Nile. The most easterly is the Tacazzé of the moderns, which flows down the north side of the table-land of Abyssinia. The second known branch, or the Blue River, first makes a circuit on the table-land of Abyssinia, and then flows down through the plains of Sennaar, or of Fungi. The sources of this Blue River were found and described by the Jesuits, Pæz and Tellez, two centuries before the pretended discovery of Bruce. These two rivers are tributaries to the White River, the Bahr-el-Abiad, which is the true Nile, and the sources of which must lie in the countries to the south of Darfoor. These countries are, according to the report of a Negro, named *Dar-el-Abiad*. The mountains from which it issues are called Dyre and Tegla; and probably form part of the Al-Qamar^a mountains, or the mountains of the Moon. As it seems proved that travellers have passed by water from Tombuctoo to Cairo, either the Niger must fall into the Nile, if it be not really the Nile itself; or there must be intermediate rivers, forming between the Nile and Niger a communication resembling that which was found by Humboldt, between the Orinoco and the Amazons. The first hypothesis might seem to be supported by a vague romantic passage of Pliny the naturalist, quoted in our History of Geography.^b The other hypothesis is the only one which can reconcile the accounts of persons who have travelled by this route from Tombuctoo, with the positive testimony of Mr. Browne, according to which the rivers Misselad, and Bar-Kullah, run from south to north. This fact, which is generally admitted, does not allow us to suppose any other communication between the Nile and the Niger, than one formed by canals which, like the Casiqui-

ari in Guiana, may wind along a table-land where the sources of the Misselad and Bar-Kullah are at a short distance from each other, and from those of the Nile. Perhaps some of our readers will content themselves with supposing that the sources of all these rivers are sufficiently near to communicate by means of temporary lakes during the rainy season.

The true Nile, whatever may be its origin, receives two large rivers from Abyssinia, and then forms an extensive circuit in the country of Dongola by turning to the southwest. At three different places a barrier of mountains threatens to interrupt its course, and at each place the barrier is surmounted. The second cataract, in Turkish Nubia, is the most violent, and most unnavigable. The third is at Syene, or Assooan, and introduces the Nile into Upper Egypt. The height of this cataract, singularly exaggerated by some travellers, varies according to the season, and is generally about four or five feet.

From Syene to Cairo, the river flows along a valley about eight miles^c broad, between two mountain ridges, one of which extends to the Red Sea, and the other terminates in the deserts of ancient Libya. The river occupies the middle of the valley, as far as the defile called Gibel-Silsili. In this space of about forty miles^d long, it has very little arable land on its banks. It contains some islands which from their low level easily admit of irrigation.

Below the defile of Gibel-Silsili,^e the Nile runs along the right side of the valley, which in several places has the appearance of a line of rock cut perpendicularly, while the ridge of the hills on the left side is nearly always accessible by a slope of various acclivity. These latter mountains begin, near the town of Sioot, to diverge gradually to the west, in a direction towards Faïoom,^f so that between them and the cultivated valley there is a desert space, becoming gradually wider, and which in several places is bordered on the valley side by a line of sandy downs lying nearly south and north.

The mountains which confine the basin of the Nile in Upper Egypt are intersected by defiles which on one side lead to the shores of the Red Sea, and on the other to the *Oâses*. These narrow passes might be habitable, since the winter rains maintain for a time a degree of vegetation, and form springs which the Arabs use for themselves and their flocks.

The stripe of desert land which generally extends along each side of the valley, parallel to the course of the Nile,

^a Gibel Kumri.

^b See book X. of the History of Geography.

^c 3 French leagues.

VOL. II.—NOS. 59 & 60.

^d 15 French leagues.

^e Girard, *Mém. sur l'Égypte*, t. III. p. 13.

^f "Fayoum," Feium.

(and which must not be confounded with the barren ocean of sand which lies on each side of Egypt,) now contains two very distinct kinds of soil; the one immediately at the bottom of the mountain, consists of sand and rolled pebbles; the other, composed of light drifting sand, covers an extent of ground formerly arable. If a section of the valley is made by a plane perpendicular to its direction, the surface will be observed to decline from the margins of the river to the bottom of the hills, a circumstance also remarked on the banks of the Mississippi, the Po, part of the Borysthenes, and some other rivers.

Near Beni-sooef,^a the valley of the Nile, already much widened on the west, has on that side an opening through which a view is obtained of the fertile plains of Faïoom. These plains form properly a sort of table-land, separated from the surrounding mountains on the north and west by a wide valley, of which a certain portion, always laid under water, forms what the inhabitants call *Birket-él-Kârun*.

Near Cairo, the chains which limit the valley of the Nile diverge on both sides. The one, under the name of Gibel-al-Nairon, runs north-west towards the Mediterranean: the other, called Gibel-al-Attaka, runs straight east to Suez.

In front of these chains a vast plain extends, composed of sands covered with the mud of the Nile. At the place called Batu-el-Bakara, the river divides into two branches; the one of which flowing to Rosetta, and the other to Damietta, contain between them the present Delta; but this triangular piece of insulated land was in former times larger, being bounded on the east by the Pelusian branch, which is now choked up with sand or converted into marshy pools. On the west it was bounded by the Canopic branch, which is now partly confounded with the canal of Alexandria, and partly lost in lake Etko. But the correspondence of the level of the surface with that of the present Delta, and its depression as compared with that of the adjoining desert, together with its greater verdure and fertility, still mark the limits of the ancient Delta, although irregular encroachments are made by shifting banks of drifting sand, which are at present on the increase.

The different *bogaz*,^b or mouths of this great river, have often changed their position, and are still changing it; a circumstance which has occasioned long discussions among geographers. The following are the most established results. The seven mouths of the Nile, known to the ancients, were, 1. the *Canopic* mouth, corresponding to the present mouth of lake Etko; or according to others, that of the lake of Aboukir, or Maadée;^c but it is probable, that at one time it had communications with the sea at both of these places. In that case it is probable that these lakes existed nearly in their present state, except that the Nile flowed through them, and gave them a large proportion of fresh water, instead of the sea water with which they are now filled. We cannot believe that the bottoms of these lakes were formerly higher, as we know of no natural pro-

cess by which surfaces of such breadth could have been subsequently excavated. 2. The *Bolbitine* mouth at Rosetta. 3. The *Sebenitic* mouth, probably the opening into the present lake Bourlos.^d 4. The *Phatnitic*, or *Bucolic*, at Damietta. 5. The *Mendesian*, which is lost in lake Menzaleh, but its mouth is represented by that of Dibeh. 6. The *Tanitic*, or *Saitic*, which seems to leave traces of its termination towards the eastern extremity of lake Menzaleh, in that known by the modern appellation of Omm-Faredjeh. The branch of the Nile which conveyed its waters to the sea corresponds to the canal of Moez, which now loses itself in the lake. 7. The *Pelusiatic* mouth seems to be represented by what is now the most easterly mouth of lake Menzaleh, where the ruins of Pelusium are still visible.^e

The depth and rapidity of the Nile differ in different places, and at different seasons of the year. In its ordinary state, this river carries no vessels exceeding sixty tons burden, from its mouth to the cataracts. The bogaz of Damietta is seven or eight feet deep when the waters are low. That of Rosetta does not exceed four or five. When the waters are high, each of them has forty-one feet more, and caravels of twenty-four guns can sail up to Cairo.^f The navigation is facilitated in a singular degree during the floods: for, while the stream carries the vessels from the cataracts to the bogaz with great rapidity, the strong northerly winds allow them to ascend the river, by means of set sails, with equal rapidity. These winds are constant for nine months of the year, and, when the river is low, and the stream less rapid, vessels cannot often make their way downward even with their sails furled, the wind upward being more powerful than the stream, even under these circumstances. The regular practice at such times is, to row down with the stream during the night when the wind has subsided, and to halt somewhere during the day; while the vessels that are upward bound sail by day and halt by night. The passage from Cairo to the Mediterranean, occupies eight or ten days.^g When both voyages are practicable, it is an interesting sight to see the numerous boats passing one another on their way. The bogazes are difficult to navigate even during high Nile. Shifting sandbanks create unforeseen dangers in every part of the river. The cataracts are sometimes passed with the aid of a little address, combined with courage; the lowest cataract, in particular, being rather a rapid than a waterfall.^h

The celebrated plains of Egypt would not be the abode of perpetual fertility, were it not for the swellings of the river, which both impart to them the requisite moisture, and cover them with fertilizing mud. We now know for certain what the ancients obscurely concluded,ⁱ and what was asserted by Agatharchides, Diodorus, Abdollatif, and the Abyssinian envoy, Hadgi Michael,^k that the heavy annual rains between the tropics are the sole cause of these floods, common to all the rivers of the torrid zone, and which, in low situations, such as Egypt, occasion inundations.

^a "Benisouyef," Benisuef.

^b *Bocazze*, Clarke.

^c The Maadée, or Maadia, is the same as the Etko, (Utkó, Clarke;) and the lake of Aboukir is otherwise called lake Sed, (Said, Clarke).—Clarke, Ed. Encyc.—P.

^d *Bereios*, Clarke.

^e Mém. sur l'Égypte, I. 165. Comp. Dubois-Aymé, Mémoire sur les Bouches-du-Nil. Livourne, 1812.

^f Description de l'Égypte, vol. I. Mémoire de M. Lepère, sur le canal des deux mers, sect. II. parag. 5 et 6.

^g In the original, this length of time refers solely to the passage from the mouth to the cataracts, upward or downward, in the most

favourable season: "on fait l'un et l'autre trajet en huit à dix jours;" i. e. the passage from the cataracts to the mouth, and *vice versa*, by the force of the current in one direction, and that of the strong N. winds in the other, is only 8 or 10 days. Dr. Clarke's passage from Rosetta to Cairo was only 36 hours, "against the utmost force and rapidity of the torrent."—P.

^h Sicard, Norden. See particularly Belzoni, vol. II. p. 119. second edition.

ⁱ Meiners, Histoire du Nil, dans ses Œuvres Philosophiques, p. 80.

^k Quoted by Wansleben in an unpublished account of a journey in Egypt. Collection de Paulus, I. 21.

The rise of the Nile commences with the summer solstice. The river attains its greatest height at the autumnal equinox, continues stationary for some days, then diminishes at a less rapid rate than it rose. At the winter solstice it is very low, but some water still remains in the large canals. At this period the lands are put under cultivation. The soil is covered with a fresh layer of slime of greater or less thickness.

The fertility and general prosperity of Egypt depend much on a certain medium in the height to which the Nile rises in its inundations; too little rise or too much is nearly equally hurtful. In September, 1818, M. Belzoni witnessed a deplorable scene, from the Nile having risen three feet and a half above the highest mark left by the former inundation.^a It was productive of one of the greatest calamities that had occurred in the memory of any one living. Rising with uncommon rapidity, it carried off several villages, and some hundreds of their inhabitants. Expecting an unusual rise, in consequence of the scarcity of water during the preceding season, the inhabitants had erected, as usual, fences of earth and reeds round their villages, to keep the water from their houses; but its force baffled their efforts, and the rapid stream carried before it men, women, children, cattle, and corn, in a moment. In Upper Egypt, the villages are not raised above the level even of the ordinary inundations, but depend for their safety on artificial fences. When a village is in danger, the boats are busily employed in removing the corn and the people, the former being first attended to, as more important to the Pasha; and, if the water breaks in before the inhabitants have been placed in security, their only resource is to climb the palm trees, and there wait till a boat comes to their rescue. Those who have it in their power repair with their property to a higher ground, others escape mounted on buffaloes or cows, or keep themselves afloat on logs of wood. Mr. Belzoni, in the course of his travels, came to the village of Agalta, between Luxor and Cairo, which he found four feet lower than the surface of the surrounding water; the caimakan, or guard, deploring his imminent danger of being swept away from a place in which honour and duty obliged him to remain. Some poor refugees were placed on spots of ground very little raised above the river, which had still twelve days to rise before reaching its utmost height, at which it remained stationary for other twelve.

The analysis of the mud of the Nile gives nearly one half of argillaceous earth, about one fourth of carbonate of lime, the remainder consisting of water, carbon, oxide of iron, and carbonate of magnesia.^b On the very banks of the Nile, the mud is mixed with much sand, which it loses in proportion as it is carried farther from the river, so that at a certain distance it consists almost of pure argil. This mud is employed in several arts in Egypt. It is formed into excellent bricks, and vessels of divers forms. It enters into the manufacture of tobacco pipes. Glass manufacturers employ it in the construction of their furnaces, and the country people cover their houses with it. This mud contains principles favourable to vegetation, and the cultivators consider it as sufficient manure.

The salubrity of the water of the Nile, so much extolled among the ancients, is acknowledged also by the moderns

under certain limitations. Being very light, it may deserve in this respect the character given of it by Maillet, that it is among other waters what Champagne is among wines. If Mahomet had tasted it, the Egyptians say, he would have supplicated heaven for a terrestrial immortality, to be enabled to enjoy it to eternity.^c It is said to be laxative, owing to certain neutral salts contained in it. But during the three summer months when it is in some places almost stagnant, it requires to be filtered, or otherwise clarified, before it can be used with safety. During the increase of the Nile, it first acquires a green colour, sometimes pretty deep. After thirty or forty days, this is succeeded by a brownish red. These changes are probably owing to the successive augmentations which it receives from different temporary lakes, or sheets of water, formed by the rains on the different table-lands of the interior of Africa.

The mountains on the west side of the Nile seem to consist of shell limestone. In those of the east side, serpentine and granite seem to form the highest ridges.

The stone of which the pyramid of Cheops, near Djizeh,^d is built, is a fine grained carbonate of lime, of a grayish white colour, and easily cut. The red granite, or rather syenite, of the ancient monuments, and which forms the coating of the pyramid called *Mycerinus*, is believed to be the *Pyropæcylon* of Pliny. In the neighbourhood of the Pyramids are found the Ethiopian jasper, the quartz rock with amphibole, and the Egyptian jasper, which is a quartz agate coarsely veined.^e From the ancient specimens preserved at Velletri, in Cardinal Borgia's museum, a Danish mineralogist, M. Wad, has published an essay on the fossils of Egypt. These specimens are, red granite, white granite, mixed with hornblende, (a character which distinguishes syenite from the proper granites,) green feldspar, and black hornblende. The porphyry seems to be formed of petrosilex, with crystals of feldspar. There is likewise found among them a small specimen of a dark brown micaceous schistus. The others are limestone, feldspar, breccia, serpentine, potstone, marble with veins of silvery mica, swinestone, jaspers of all varieties, the topaz or chrysolite of the ancients, amethyst, rock-crystal, chalcedony, onyx, heliotrope, obsidian, and lapis lazuli, but no emeralds. The greater part of the specimens are basalt, the Ethiopian stone of Herodotus and of Strabo.^f

The valley leading to Cosseir is covered with a sand partly calcareous, partly quartzose. The mountains are of limestone and sandstone. As we approach to Cosseir we find three sorts of mountains. The first consist of rocks of granite, of a small fine grain. The second chain comprehends rocks of breccia, or puddingstone, of a particular sort, known by the name of *breccia di verde*.^g To the mountains of breccia, for a space of thirty miles,^h a rock of a slaty texture succeeds, which seems to be of contemporaneous formation with the breccias, since it passes into them by gradual transitions, and contains rounded masses of the same substance.

Near the fountains of El-Aoosh-Lambageh, there rises a chain of schistose mountains, presenting in their composition petrosilex and steatitic rocks: but at a distance of eight milesⁱ from Cosseir the mountains suddenly change

^a Belzoni's Narrative, vol. II. p. 25—29.

^b Mém. sur l'Égypte, I. p. 348—352.

^c Maillet, Description de l'Égypte, I. p. 16. Mém. sur l'Égypte, II. p. 35.

^d "Glizé," Djiza.

^e A variety of jasper, (Cleaveland.)

^f Wad, fossil. Égypt. Musei Borgiani.

^g Mém. sur l'Égypte, III. p. 240.

^h 12 French leagues.

ⁱ 3 French leagues.

their character; a great part of them are limestone, or gypsum, in strata almost always lying north and south. Here are found the fossile remains of the *ostrea diluviana*. Among these mountains of later formation, are found schists, and indistinct porphyries, with grains of feldspar. The bottom of the valley, covered with immense rocky fragments, presents a numberless variety of materials; sometimes serpentines, compound rocks in which actinote is the predominating ingredient, schists, gneiss, porphyries, and granites; sometimes a particular kind of steatite containing nodules of schistose spar. There is besides a new and peculiar substance in mineralogy, which is also found in several spots of the desert of Sinai, and which resembles thalite, or the green schorl of Dauphiné. It is not found in a separate state, but forms part of the granites, the porphyries, and other rocks.^a Towards the valley of Suez, the mountains are calcareous, and in several places composed of concreted shells.

In the valley of the wilderness,^b sea salt is found in thin compact layers supported by strata of gypsum. In many of the surrounding deserts this salt is very common, sometimes crystallized under the sand, sometimes on the surface.

In Upper Egypt, near Edfoo, the mountains are composed of slate,^c sandstone, white and rose-coloured quartz, and brown pebbles, mixed with white cornelians.^d Near the ruins of Silsilis, the granite rocks contain cornelian, jasper, and serpentine. A little higher in Upper Egypt, the rocks are granite alternated with decomposed sandstone, forming on the surface a friable crust, and presenting the appearance of a ruin.

But the most curious country undoubtedly, is that which is comprehended in the Bahr-bèla-Maié (the river without water) and the basin of the Natron lakes. These two valleys are parallel to each other. The mountain of Natron skirts the whole length of the valley of that name. That mountain contains none of the rocks which are found scattered about in the valley, such as quartz, jasper, and petrosilex.^{e,f}

There is a series of six lakes in the direction of the valley. Their banks and their waters are covered with crystallizations, both of muriate of soda, or sea salt, and of natron, or carbonate of soda. When a volume of water contains both of these salts, the muriate of soda is the first to crystallize; and the carbonate of soda is then deposited in a separate layer. Sometimes the two crystallizations seem to choose separate localities in insulated parts of the same lake.^g

This curious valley is only inhabited by Greek monks. Their four convents are at once their fortresses and their prisons. They subsist only on vegetables. The vegetation in these valleys has a wild and dreary aspect. The palms are mere bushes, and bear no fruit.

Caravans come to this place in quest of natron. According to Andreossy, the farming of the tax on this substance, which is in demand for divers manufactures, was on the same footing with the old gabelle on salt in France.

The valley parallel to that of Natron is called Bahr-

bèla-Maié,^h or "the Dry River." Separated from the valley of Natron by a small ridge of heights, it has for the most part a breadth of eight miles.ⁱ In the sand with which the surface is every where covered, trunks of trees have been found in a state of complete petrification, and a vertebral bone of a large fish. The same stones are met with here as in the valley of Natron. Some of the learned have thought that the stones have been brought to the place by a branch of the Nile which once passed in this direction. The valley of Bahr-bèla-Maié, is said to join Faïoom on the south, and to terminate in the Mediterranean in the north.

These countries have undoubtedly undergone violent revolutions, of a date prior to the present constitution of the globe. Their modern changes have, in extent and importance, been much exaggerated by authors attached to system. M. Reynier judiciously remarks, that the diminution of arable land must have been of older date than any historical records carry us. "Several spots which the ancients have delineated on the borders of the deserts are still in the same situation; the canal of Joseph, though neglected for ages, is not in any part obstructed." Reynier only found one encroachment of the sands on the cultivated land, which was well authenticated; "it is in the province of Djizeh, near the village of Ooardan, where the sands have advanced to the banks of the Nile, and occupy a league of land."^k

Others say that the canal of Joseph is partly choked up with accumulations of slime. This canal is eighty-four miles^l long. It was employed to conduct the water of the Nile into the district of Faïoom, and into lake Mœris, the modern Birket-el-Karoon. It afforded the double advantage of watering completely the lands of Faïoom, and of disposing of a superabundance of water when the overflow of the Nile was extraordinary and excessive. It is probable that this canal, dignified with the name of Joseph, like many other remarkable works, was executed by order of king Mœris. The waters then filled the basin of the lake Birket-el-Karoon, which received the name of the prince who effected this great change. We shall thus reconcile the different positions assigned to lake Mœris by Herodotus, Diodorus and Strabo, and give a reason why the ancients say that the lake was of artificial formation, while the Birket-el-Karoon gives no evidence of any such operation.^m

The maritime districts of Egypt present several lakes, or rather lagoons, which in the lapse of ages sometimes suffer diminution, sometimes enlargement. To the south of Alexandria is lake Mareotis. For many ages this lake was dried up; for though the bed is lower than the surface of the ocean, there is not sufficient rain to keep up any lake in that country in opposition to the force of perpetual evaporation. But in 1801, the English, in order to circumscribe more effectually the communications which the French army in the city of Alexandria maintained with the surrounding country, cut across the walls of the old canal which had formed a dyke, separating this low ground from lake Maadie,ⁿ or the lake of Aboukir on the east. In consequence of this easy operation, the water had a

^a Mém. sur l'Égypte, III. p. 255.

^b Vallée d'Egarement.

^c "Ardoise," argillite.

^d Denon, t. II. p. 49.

^e Denon, p. 150, 195, 208.

^f Andréossy, Mém. sur la vallée des lacs Natron, dans la descrip. de l'Égypte, vol. I.

^g Berthollet, Journ. de Physique; messidor, an VIII. p. 5, &c.

^h Bahr Belame.

ⁱ 3 French leagues.

^k Mém. sur l'Égypte, t. IV. p. 6.

^l 30 Fr. leagues.

^m Description de l'Égypte: Antiquités; Mémoires, vol. I. Mémoire sur le lac Mœris, par M. Jomard. Compare Pococke, D'Anville, Gibert, &c.

ⁿ See note (c) page 10.

sudden fall of six feet, and the lake of Mareotis which had so long disappeared, and the site of which had been occupied partly by salt marshes, partly by cultivated lands, and even villages, resumed its ancient extent. The inhabitants of the villages were obliged to fly, and bewail, from a distance, the annihilation of their gardens and their dwellings. This modern inundation from the sea indeed is much more extensive than the ancient lake Mareotis, occupying, probably, four times its extent. The lake of Aboukir has a physical history somewhat similar, having been for two centuries in a dry state, till in 1778, an irruption of the sea broke through the embankment by which it had been previously protected. Lake Etko, to the south-east, has a similar character, communicating with the sea by a narrow mouth, which would admit of being closed up, so as to convert the lake into a dry or a marshy salt plain.

The map of lake Menzaleh, constructed by General Andreossi, furnishes important corrections to the description given of Egypt by D'Anville. This lake is formed by the union of two large gulfs, and bounded on the north by a long narrow stripe of low land, separating it from the sea. The two gulfs are partially separated by the peninsula of Menzaleh, at the extremity of which are found the islands of Matharyéh, the only ones in the lake that are inhabited. D'Anville has also given too much breadth to the northern coast of this lake; and the measurements lately taken differ from his by more than 25,000 yards.^a Lake Menzaleh communicates with the sea only by two navigable mouths, those of Ybeh^b and Omfareddgié,^c which are the Mendesian and Tanitic mouths of the ancients.^d The breadth from the mouth of Ybeh to that of Pelusium is 95,920 yards.^e

It is impossible to fix the number of canals appropriated to the distribution of the waters of the river to the different parts of the country. When we find that one traveller gives 6000 to Upper Egypt alone,^f while another allows only about ninety large canals, viz. forty for Upper Egypt, twenty-eight for the Delta, eleven for the eastern, and thirteen for the western provinces,^g we perceive that a discrepancy so great must arise from the manner of reckoning the canals. One concerns himself only with the large ones, of which the maintenance is established, and the opening fixed, by the regulations of the country. Another extends his views to canals ramifying from these, which vary in number from one year to another. The Mameluke Beys applied to their private use the funds destined to the support of these public works, on which the fertility of Egypt depends. Many canals were even abandoned by these barbarians, who thus destroyed the resources of their own revenues. The most famous of these artificial rivers is the canal of Joseph, or the Calideh-Menhi, which is 110 miles^h long, with a breadth of from 50 to 300 feet. One part of this canal seems to correspond to the ancient canal of Oxyrynchus, which Strabo in sailing along mistook for the Nile itself.ⁱ

Another canal, which, however, was intended solely for navigation, viz. that of Suez, has furnished matter for many discussions; these we shall consider in the next

Book, in which we shall treat expressly of every thing relating to the celebrated isthmus which connects Africa with Asia.

The climate and fertility of Egypt have given rise to an equal number of discrepant opinions among authors. One French traveller finds in this country a terrestrial paradise;^k another assures us that it is a most unpleasant country to reside in.^l Observers of a more composed turn of mind show us how to reduce to their proper value the descriptions of these two volatile writers. The aspect of Egypt undergoes periodical changes with the seasons. In our winter months, when nature is for us dead, she seems to carry life into these climates, and the verdure of Egypt's enamelled meadows is then delightful to the eye. The air is perfumed with the odours of the flowers of orange and citron trees, and numerous shrubs. The flocks overspreading the plain, add animation to the landscape.—Egypt now forms one delightful garden, though somewhat monotonous in its character. On all hands it presents nothing but a plain bounded by whitish mountains, and diversified here and there with clumps of palms. In the opposite season this same country exhibits nothing but a brown soil, either miry, or dry, hard, and dusty; immense fields laid under water, and vast spaces unoccupied and void of culture, plains in which the only objects to be seen are date trees; camels and buffaloes led by miserable peasants, naked and sun-burnt, wrinkled and lean; a scorching sun, a cloudless sky, and constant winds more or less violent. It is not, therefore, surprising, that travellers have differed in their physical delineations of this country.^m

"A long valley," says M. Reynier,ⁿ "encircled with hills and mountains, presents no point in which the surface has sufficient elevation to attract and detain the clouds. The evaporations from the Mediterranean too, during summer, carried off by the north winds, which, in that season, have almost the constancy of trade winds in Egypt, finding nothing to stop their progress, pass over this country without interruption, and collect around the mountains of central Africa. There, deposited in rains, they swell the torrents, which, falling into the Nile, augment its waters, and under the form of an inundation, restore, with usury, to Egypt the blessings of which the defect of rain would otherwise deprive it. Thus, excepting along the sea shores, nothing is more rare in Egypt than rains, and this scarcity is the more marked in proportion as we go southward. The season in which any rain falls is called winter. At Cairo there are, at an average, four or five showers in the year; in Upper Egypt, one or two at most. Near the sea rains are more frequent." This last circumstance, however, shows that the want of rain does not arise solely from the flatness of the surface, but partly from its previous aridity; nothing can be more flat than the sea shores, and the surface of the sea itself, but the perpetual humidity in the latter has the effect of producing a deposition of rain, both on its own surface and on the adjoining-land, to which the more remote sandy expanse of territory is unfavourable. If Egypt were in the hands of a nation and government that cultivated the economical arts with spirit, perhaps the ex-

^a 12,000 toises.

^b Dibeh.

^c Omm-faredjeh.

^d Mém. sur l'Égypte, t. I. p. 165, with the map.

^e 45,677 toises.

^f Maillet, &c.

^g Tourtehot, Voyage en Égypte, trad. All. p. 423. Sicard, Nouv. Mém. des Mission. VII. p. 115.

^h 40 Fr. leagues.

ⁱ Norden, p. 259, (in German.) D'Anville, Mém. sur l'Égypte, p. 166. Hartmann, Égypten, p. 1019.

^k Savary, Letters sur l'Égypte, passim.

^l Volney, Voyage, t. II. p. 219.

^m Brown.

ⁿ Reynier, Traité sur l'Égypte, II. p. 12.

tension of herbage from the sea shore towards the interior would be followed by an extension of the domain of animating showers.

By a great proportion of the Egyptian farmers, however, the rains are considered as by no means beneficial occurrences, but as only occasioning the springing of a multitude of weeds which prove hurtful to the corn crops.

From the nature of the surface, and the universal aridity of the surrounding deserts, Egypt is much hotter than most other countries under the same parallel of latitude. The heated and rarefied state of that portion of air which is in immediate contact with the sand through the day, is productive of a refraction of the rays of light, giving origin to the surprising appearance called the *mirage*, presenting on the dry surface an exact representation of a lake of water, sometimes ruffled into waves, at other times still and smooth, and appearing to reflect like a mirror the images of houses and other objects situated beyond it. Such is its most common appearance when seen from a distance. This phenomenon is the more striking, as water is generally much in request with the thirsty traveller, in a country where it is so scanty, and so dependent on the vicinity of the Nile, and when the illusion vanishes on his arriving at the spot, he feels a cruel disappointment, especially if not much used to the phenomenon.

The winds are very regular during the months of June, July, August, and September, blowing almost without interruption from the north, and the north-east. In the day the sky is clear, without clouds or mists. But the cooling of the atmosphere consequent on the setting of the sun condenses the vapours. These are then observed to pass with a hurried motion from north to south, and this motion continues till after sunrise on the following day, when the solar heat rarefies them anew and renders them invisible.

The epoch of the decrease of the Nile, which generally takes place in October, is accompanied with intermitting winds. These winds blow from the north, with intervals of calm weather. In winter the winds are changeable; the cloudless atmosphere opposes no obstacle to the action of the solar rays, and vegetation, then in all its strength, applies, with the best possible effect, the moisture contained in the earth. The only symptoms of moisture in the air are the abundant dews deposited in the night, which are always in proportion to the clearness of the atmosphere,^a and some mists which make their appearance in the morning. The latter, however, are comparatively unfrequent.

The approach of the vernal equinox changes the face of the country; the hot south wind begins to blow, but seldom lasts more than three days at a time. When this south wind, called the *khamseen*^b in Egypt, *samiel* in Arabia, and *samoon*^c in the desert, begins to blow, the atmosphere grows thick and hazy, sometimes acquiring a purple tinge; the air seems to lose its power of supporting life and vigour; a dry burning heat reigns universally, and whirlwinds, resembling the blasts of a heated furnace, sweep along the country in frequent succession. They often

raise the sand and even small stones to a considerable height, so as to form a black cloud; and deposit it in large heaps on particular spots of ground. The fine sand is forced into the houses through every cranny, and every thing is filled with it.

The season of the *khamseen* is the only one in which the atmosphere of Egypt is generally unhealthy.^d It is then that the plague makes its appearance in all its dreadful power; a disease, the nature and origin of which still escape the researches of medical science. To us it seems proved that the plague is indigenous in Egypt, and not brought to it from other countries.^e Ancient Egypt was not exempt from this scourge. It is without reason that some modern writers have accused the ancients of exaggerating the salubrity of Egypt. Certain passages in the works of Aretæus of Cappadocia show that a disease nearly allied to the plague was in his time considered as endemic in Egypt and Syria.

The ophthalmia makes greatest ravages during the inundations, a circumstance which shows that it is not entirely owing to the glare of the sun and the heat of the scorching winds. As it attacks principally persons who sleep in the open air, it is natural to look for one cause of it in the copious night dews.^f Some have ascribed it to the natron with which the soil is impregnated, communicating pungent qualities to the air,^g a cause altogether fanciful. It is now well substantiated that this disease is cherished by a specific contagion existing in the country, and singularly favoured by different causes which bring it into frequent activity. Some of these causes are apparently opposite to one another, such as the solar glare, and the nocturnal cold, both of which are known with certainty to be frequent immediate causes of it in individuals.

To an atmosphere thus singularly constituted, and to the regular inundations of the Nile, Egypt is indebted for the advantage which it enjoys of uniting almost all the cultivated vegetable species of the old continent. The culture of Egypt may be divided into two great classes. The one class belongs to the lands watered by the natural overflowings of the Nile, and the other to those which the inundation does not reach, and which are supplied by artificial irrigations.

In the first we include wheat, barley, spelt, beans, lentils, sesamum, mustard, flax, anise, carthamus or bastard saffron, tobacco, lupins, chiches, *barsim* or Egyptian trefoil, fenugreek, pumpkins, melons, cucumbers of different kinds, and lettuce. The best wheat grows at Maraga, in Upper Egypt.^h The district of Akminⁱ produces the largest crops. Barley, with six rows of grains in the ear, (*Hordeum hexastichon*), forms a large proportion of the food given to cattle and horses. The cucurbitaceous vegetables, and also tobacco, and lupins, generally cover the banks of the river in proportion as the water subsides, and the islands which it leaves uncovered. The melons and cucumbers grow almost visibly. In twenty-four hours they gain twenty-four inches of volume,^k but are generally watery and insipid,^l the tobacco is weak, but reckoned

^a See a scientific and satisfactory account of this subject in Dr. Wells's Essay on Dew, and in the article DEW in the Supplement to the Encyclopædia Britannica, by Professor Leslie.

^b "Khamysin," chamsin.

^c "Sémouin," simoon.

^d Larrey, Relation historique et chirurgicale de l'armée d'Orient, p. 419.

^e Mémoires de Gaëtan Sotira et de Pugnet.

^f Tott, IV. p. 46.

^g Olivier, Magasin Encyclopedique, Vc année, t. I. p. 290.

^h Norden, Voyage, p. 274, (en All.)

ⁱ "Achmyne," Achmin.

^k Volney, Voyage. Forskâl, Flora Ægyptiaca.

^l Abdollatif, Relat. de l'Égypte, chap. II. Sonnini, Voyage d'Égypte, III. p. 145 et 251.

much pleasanter to smoke than that of America. The woad is almost always cultivated in the canals when the water has retired. The flax in several districts is also cultivated on lands artificially irrigated. These cultures are not laborious. After a slight preparatory tillage, the seed is committed to the earth, still moist and slimy: it sinks by its own weight to a due depth, needing no harrowing to cover it; but, if the tillage and sowing are delayed, the soil cracks and hardens to such a degree as not to admit of being cultivated without great toil.^a In Upper Egypt the grain is pulled when ripe; and in some parts of Lower Egypt it is cut with a sickle. The plough used here is simple and better contrived than that of the Arabians.^b

The second kind of culture requires more attention and labour. It is that of lands which, from their elevation, or from the means which localities afford for protecting them from the inundations of the river, are appropriated to plants that require repeated waterings during their growth. These cultures are chiefly on the very banks of the Nile, in Upper Egypt, in Faïoom, and in the lowest part of Egypt, where the waters already exhausted are not in sufficient abundance to cover all the lands. In Upper Egypt, these lands are chiefly sown with the *Holcus dourra*, which forms the prevailing food of the people. The grain is sometimes eaten like maize in a green state, being previously roasted on the fire. The stalk is eaten green like sugar-cane: the dried pith is used for tinder; the leaf is the food of cattle. The stalk is used as fuel for heating ovens. The grain is ground into meal, of which thin cakes are made in the manner of muffins, or crumpets, which eat tolerably well when newly made, but are extremely stale in a short time after. None of the preparations of this grain, in short, are agreeable to a European taste.^c Upper Egypt produces also in this sort of lands the sugar-cane, the growth of which is completed there in a single season, as in Mazanderan on the shores of the Caspian Sea. Indigo and cotton^d are cultivated in the same situation, and in the neighbourhood of the towns some pot-herbs. Faïoom is distinguished for the cultivation of rose bushes, from which is obtained the rose-water, which is in so great request over the East. Pot-herbs are also produced there, and a little rice in the immense ravines which go off from Illahoon, to the north of that province. The lowest part of the Egyptian territory abounds in rice and pot-herbs. The best rice grows in the province of Damietta. The rice culture was introduced under the Caliphs, and was probably borrowed from the Hindoos.^e Doura and maize are still cultivated in the Sharkieh,^f or ancient Eastern Delta, where now a little sugar-cane, indigo, and cotton, are produced.

All lands under the second sort of culture are laid out in artificial squares, separated by low dykes, on the tops of which a small channel is formed. These channels communicate with one another. The water is raised by means of a long lever provided with a weight behind, which assists the ascent of the bucket hung to the extremity of the

longest arm, and which a man depresses by a slight exertion: at the moment of its ascent the water is emptied into a reservoir from which it flows by the channels to the spot to which the person who manages the irrigation chooses to direct it. The motion of the lever not being capable of raising the water more than six feet, the cultivators are obliged to provide themselves with a succession of basins and levers, in proportion to the height of their land above the level of the river. Various other machines are used for raising water,^g particularly the Persian wheel, driven by an ox. In Faïoom, a method of watering the land is in use similar to that which prevails in certain districts of China and Japan. The waters intended for irrigating lands, situated on the sides of the hills and at the bottom of a valley, are first raised to the top by a balance called *deloo*, or *shadoof*. They are received into horizontal channels, and then descend from one channel to another to the lower terraces, which are arranged like the seats of an amphitheatre on the sides of the hills. It must be acknowledged, however, that an injudicious waste of labour is incurred by raising any portion of the water higher than is requisite for diffusing it over that terrace for which it is ultimately designed.

Some European species of fruit trees do not grow in Egypt. This is the case with the almond, the walnut, and the cherry.^h The pear, the apple, the peach, and the plum, are neither plenty nor of good quality;ⁱ but the citrons, lemons, oranges, pomegranates, and apricots, prosper along with the banana, a single tree of which sometimes produces 500.^k The sycamore, or fig of Pharaoh, less valued for its fruit than for its deep and broad shade, the carob, the jujube, the tamarind, and other trees, are cultivated, but none of them are equal in number and usefulness to the date palm, which is cultivated both in lands of natural and those of artificial irrigation. Groves are to be seen consisting of 300 or 400, sometimes of several thousands; the produce of each is valued at one piastre.^l The olive tree is only met with in gardens, but there are some olive plantations in Faïoom, where the inhabitants preserve the fruits in oil, and sell them all over Egypt. The vine, in ancient times, formed an interesting branch of culture. Antony and Cleopatra inflamed their voluptuous imaginations by drinking the juice of the Mareotic grapes. In the days of Pliny, Sebennytyus furnished the Roman tables with their choicest wines.^m At present the vine is not cultivated in Egypt except for its shade and its grapes. Some Christians, who manufacture an indifferent wine in Faïoom, form a very insignificant exception. The vines of Foua, mentioned by former travellers, are no longer in existence.

A large and beautiful fruit tree, celebrated among the ancients, the *persea* of the Greeks, and the *lebakh* of the Arabians, seems to have disappeared from the Egyptian soil;ⁿ at least, naturalists cannot recognise it in any of the species now existing in that country. It has been supposed to be the aguacate or *avocatier*^o of St. Domingo, to which, in consequence of this conjecture, botanists have given the

^a Norden, Voyage, p. 335.

^b Niebuhr's Arabia, p. 151, (in German.)

^c Sicard, Nouv. Mém. II. p. 143.

^d Cotton has been very extensively cultivated by Ali Pacha for exportation.—P.

^e Hasselquist, Travels in Palestine, p. 130. (German.)

^f "Charkieh," Al Sharkie.

^g Niebuhr, tab. XV. fig. 1, 2, 3, 4.

^h Maillet, Descript. de l'Égypte, II. 285.

ⁱ See Wansleb, Relat. dell. stat. present. p. 59.

^k Abdollatif, trad. de M. Silvestre de Sacy, p. 27 et 106.

^l Hasselquist, 128—133, &c. &c.

^m Vins de liqueur, "luscious or sweet wines.

ⁿ Silvestre de Sacy, Notes sur Abdollatif 47—72.

^o Advocate pear.

name of *Laurus persea*.^a Others have attempted to prove the identity of it with the sebesten,^b but the differences are too glaring to allow this hypothesis to be tenable. We are only assured by positive testimony that this tree had become more and more rare, and at last disappeared before the year 700; and that having come from Persia, where its fruit was crude and bitter, it acquired by culture those excellent qualities for which it was so celebrated; these circumstances ought to have led naturalists to look for this tree in the East Indies.

Another production of Egypt, which makes a great figure in the writings of antiquity, is the *lotus*. This word was taken in different acceptations.^c The plant properly called the lotus is a species of *nymphaea*, or waterlily, which, on the disappearance of the inundation, covers all the canals and pools with its broad round leaves, among which the flowers, in the form of cups of bright white or azure blue, rest with inimitable grace on the surface of the water. There are two species of the lotus, the white and the blue, both known to the ancients, though the blue kind is most frequently mentioned. The rose-lily of the Nile, or the Egyptian bean, which is frequently carved on the ancient monuments of Egypt, is not at present found in that country. This plant would have been unknown to naturalists if they had not found it in India. It is the *Nymphaea nelumbo* of Linnæus. It was on this plant that the lotus-eating^d Ethiopians lived. But the fruits of the lotus, praised by Homer, and which so much delighted the companions of Ulysses, were those of the modern jujube, or *Rhamnus lotus*. This same tree is described by Theophrastus under the name of the lotus, and is perhaps the *dudaïm*^e of the Hebrew writings. Lastly, the plant called by Pliny *Faba græca*, or *lotus*, is the *Diospyros lotus*, a species of guayacana^f or ebony. The *papyrus*, equally celebrated in ancient times, and which was believed to have disappeared from the banks of the Nile, has been re-discovered in the *Cyperus papyrus* of Linnæus. The *colocasia*, so renowned in antiquity, is still cultivated in Egypt for the sake of its large esculent roots.

Egypt, so rich in cultivated plants, is destitute of forests. The banks of the river and of the canals sometimes present us with coppices of *acacias* and *mimosas*. They are adorned with thickets of rose laurel, of willows,^g (the *Salix ban*, of Forskal,) cassias, and other shrubs. Faïoom contains impenetrable hedges of *cacti*. This illusory appearance of forests furnishes the Egyptians with no firewood, and all that they make use of is brought from Caramania.^h The peasants burn cow-dung, which they collect with an almost ludicrous solicitude. Scarcely does one of these animals show a disposition to part with any refuse, when the peasant stretches out his hand to receive it.ⁱ

The economical year of Egypt presents a perpetual circle of labours and enjoyments. In January, lupins, the dolichos, and cummin, are sown, while the corn shoots into ear in Upper Egypt; and in Lower Egypt the beans and flax are in flower. The vine, the apricot, and the palm tree, are pruned. Towards the end of the month, the

orange, the citron, and pomegranate trees, begin to be covered with blossoms. Sugar cane, senna leaves, and various kind of pulse and trefoil, are cut down. In February all the fields are verdant; the sowing of rice begins; the first barley crop is harvested; cabbages, cucumbers, and melons, ripen. The month of March is the blossoming season for the greater part of plants and shrubs. The wheat sown in October and November is now gathered. The trees which are not yet in leaf are the mulberry and the beech. The first half of April is the time for gathering roses. Almost every sort of corn is cut down and sown at the same time. Spelt and wheat are ripe, as well as the greater part of the leguminous crops. The Alexandrian trefoil^k yields a second crop. The harvest of the winter grain continues during the month of May; *Cassia fistula* and henné are in flower; the early fruits are gathered, such as grapes, Pharaoh's figs, carobs, and dates. Upper Egypt has its sugar cane harvest in June; the plants of the sandy grounds now begin to wither and die. In the month of July, rice, maize, and canes, are planted; flax and cotton are gathered: ripe grapes are abundant in the environs of Cairo. There is now a third crop of trefoil. The nenuphar and jessamin flower in August, while the palm trees and vines are loaded with ripe fruits, and the melons by this time have become too watery. Towards the end of September, oranges, citrons, tamarinds, and olives, are gathered. This is the season of the principal rice harvest. At this time, and still more in October, all sorts of grain and leguminous seeds are sown; the grass grows tall enough to hide the cattle from the observer's view; the *acacias* and other thorny shrubs are covered with odoriferous flowers. The sowing continues more or less late in November, according to the degree in which the waters of the Nile have retired. The corn begins to spring before the end of the month. The narcissuses, the violets, and the colocasias, flower on the dried lands; the *nenuphar* disappears from the surface of the waters; dates and the sebesten fruit are gathered. In December, the trees gradually lose their foliage; but this symptom of autumn is compensated by other appearances: the corn, the long grass, and the flowers, every where display the spectacle of a new spring. Thus in Egypt the land is never at rest. Every month has its flowers, and all the seasons their fruits.^l

The animal kingdom of Egypt will not detain us long. The want of meadows prevents the multiplication of cattle. They must be kept in stables during the inundation. The Mamelukes used to keep a beautiful race of saddle horses. Asses, mules, and camels, appear here in all their vigour. The numerous buffaloes often attack the Franks on account of their strange dress, and frequently bright colours, particularly when they happen, as in the instance of the British soldiers, to be dressed in scarlet. In Lower Egypt there are sheep of the Barbary breed. The large beasts of prey find, in this country, neither prey nor cover. Hence, though the jackal and hyena are common, the lion is but rarely seen in pursuit of the gazelles which traverse the

^a Clusius, Rarior. plant. histor. lib. 1. cap. 2.

^b Schreber, de Persea Comment. III.

^c Desfontaines, Mém. de l'Académie des Sciences, 1788. Sprengel, Specimen Antiq. Botan. Delille, Annales du Muséum, t. 1. p. 372. Savigny, dans les Mém. sur l'Égypte, I. p. 105.

^d "Lotophages."

^e דודאים, generally considered as the mandrake, *Atropa mandragora*.—P.

^f "Plaqueminier," *Diospyros* L. This genus belongs to the order *Guaiacanae*, Jussieu.—P.

^g "Saules-kalef," Kalef willows.

^h Forskal, Flora Ægypt. Arab. LVI.

ⁱ Niebuhr, Voyage, p. 151.

^k *Trifolium alexandrinum*, L.

^l Nordmeier, Calendar. Ægypt. Oeconomic. Gotting. 1792. Forskal, Hasselquist, Poccocke, Norden, Niebuhr, &c. quoted by Nordmeier.

deserts of the Thebaid. The crocodile and the hippopotamus, those primeval inhabitants of the Nile, seem to be banished from the Delta, but are still seen in Upper Egypt. The islands adjoining the cataracts are sometimes found covered with flocks of crocodiles, which choose these places for depositing their eggs. The voracity of the hippopotamus has, by annihilating his means of support, greatly reduced the number of his race. Abdollatif, with some justice, denominates this ugly animal an enormous water-pig. It has been long known that the ichneumon is not tamed in Egypt, as Buffon had believed. The ichneumon is the same animal which the ancients mention under that name, and which has never been found except in this country. Zoology has lately been enriched with several animals brought from Egypt, among which are the jerboa, *Dipus meridianus*, a new species of hare, a new fox, a hedgehog, a bat, and four species of rats, two of which are bristly. The *Coluber haje* has also been found, an animal figured in all the hieroglyphical tables as the emblem of providence; and the *Coluber vipera*, the true viper of the ancients.

The Nile seems to contain some singular fishes hitherto unknown to systematic naturalists. Of these the *Polypterus bichir*, described by Geoffroy-Saint-Hilaire,^a is a very re-

markable example. That able naturalist observes, in general, that the birds of Egypt do not much differ from those of Europe. He saw the Egyptian goose represented in all the temples of Upper Egypt, both in sculptures and in coloured paintings, and entertains no doubt that this bird was the *Chenalopex* of Herodotus, to which the ancient Egyptians paid divine honours, and had even dedicated a town in Upper Egypt, called *Chenoboscion*. It is not peculiar to Egypt, but is found all over Africa, and almost all over Europe. The *Ibis*, which was believed to be a destroyer of serpents, is, according to the observation of Cuvier, a sort of curlew, called at present *Aboohannes*. Messieurs Grobert and Geoffroy-Saint-Hilaire have brought home mummies of this animal, which had been prepared and entombed with superstitious care.^b

The Egyptians keep a great quantity of bees, and transport them up and down the Nile, to give them the advantage of the different climates, and the different productions of Upper and Lower Egypt. The hives are kept in the boats. The bees spread themselves over both banks of the river, in quest of food, and return regularly on board in the evening.

^a Annales du Muséum, I. p. 57.

^b Mémoire sur l'Ibis, par M. Cuvier.

BOOK LXI.

EGYPT.

PART II.

Inquiries relative to the Isthmus of Suez, and the extremity of the Arabian Gulf.

IN taking a general view of Africa, and tracing the physical geography of Egypt, an interesting and curious subject must have suggested itself to the minds of our well informed readers. We have deferred the examination of it till now, that we might render it more complete by making it the subject of a separate book.

Has the isthmus of Suez always existed? Has Africa ever been an island? Or at least has the neck of land which connects it with Asia been at any time much narrower than now? These questions have, since the publication of the labours of the Egyptian Institute, even divided intelligent men who have visited the country.

Let us begin with an account of the facts. The isthmus in its present state is a low lying land, composed of shell limestone rocks, mixed with strata of sandstone, and partly covered with sands, or with pools of brackish water. In several places the solid strata are with difficulty perceivable by their slight undulations; in the northern part, in particular, there is a vast plain, varied only by the inequalities created by sand hills. In the middle of its breadth, ridges of hills show their bare heads at certain distances, like a series of large steps. To the east, the south-east, and the south-west, the mountain chains of Arabia Petraea and of Egypt skirt at a distance the table land of the isthmus, which is terminated at the Red Sea.^a The lake Birket-el-Ballah, adjoining lake Menzaleh, Temsah or Crocodile Lake, and the almost dry basin of the Bitter Lakes, form, from north to south, a series of depressions, interrupted only by stripes of low land. This line, prolonged on one side to the mouth of Tineh, and on the other to the extreme point of the Gulf of Suez, marks the natural boundary of Africa. The breadth of the isthmus, in a straight line, is 378,844 feet, or nearly seventy-two miles.^b

The surface of this isthmus generally declines from the shores of the Red Sea towards those of the Mediterranean. The level of the latter sea is thirty feet lower than that of the Gulf of Suez.^c There is a similar descent towards the Delta and the bed of the river Nile. The level of the water of the Nile at Cairo at its lowest, in 1798, 1799, and 1800, was nine feet lower than the surface of the gulf at low water. But the Nile rising sixteen cubits by the Nilometer, is nine feet higher than the Red Sea at high water, and fourteen higher than the same sea at low water.

Besides these leading inclinations of the surface, there is a particular one in the middle of the isthmus. The deep basin of the Bitter Lakes is more than fifty-four feet lower than the level of the Red Sea, the waters of which would enter and fill it, if they were not prevented by a little sandy isthmus from one to three feet above the level of the sea. In another direction the valley of Sababhyar, and that of Ooady-Toomylat,^d open to the waters of the Nile, during its rise, an entrance into the basin of the Bitter Lakes.

From this account, it follows that the Red Sea never could have occupied the basin of the Bitter Lakes in a constant manner, because its waters, if raised sufficiently high to form such a communication, would have found no barrier to the north of that basin: they would have flowed all the way to the Nile by the Ras-el-Ooadi, and to the Mediterranean by the Ras-el-Moyah. The two seas thus brought into mutual contact would have reached a common level, and the strait would have become permanent. We do not deny the possibility of a sudden violent irruption, but only that of a permanent communication.

But it will be said, the Mediterranean may have been formerly thirty or forty feet higher than now; in that case it must have covered, in a great measure, the Delta and the isthmus; it must have penetrated into the basin of the Bitter Lakes, which is now only separated from the Gulf of Suez by a tongue of low land, which perhaps has not always existed. This is the only rational hypothesis that can be advanced in favour of the existence of an ancient strait in this situation. But it is evidently a hypothesis which goes back to an epoch anterior to history, for no authentic testimony of such a state of things is now in existence. The vague traditions mentioned by Homer and Strabo on the separation of the isle of *Pharos* from the continent, would not even on the system of those who believe them,^e afford proof of so great a change. But these traditions, when duly weighed, prove, in fact, nothing at all; for the removal of *Pharos* from the river of Egypt to a distance of seven days' sail, may be found, along the present coast, taking the Sebennitic mouth for that by which *Meneleus* entered. It is also possible that the Delta, inhabited by savage shepherds, was not yet a part of the kingdom of Thebes, or Egypt properly so called. At all events, an account so vague cannot be received as a historical proof.

Shells, crystals of sea salt, and brackish waters, are found

^a Rozières, dans la description de l'Égypte, Atiquités; Mémoires, I. p. 136. et la carte hydrographique de la Basse-Égypte, de M. Lepère.

^b 59,250 toises, or about 26 French leagues.

Description de l'Égypte, état moderne. I. p. 54—57, 160—176.

Mémoires sur le canal des deux mers, par M. Lepère, et le Tableau des Nivellemens dans l'Atlas.

^d "Ooady-Toomylat," the *Wadi* or valley of Toomylat.—P.

^e Dolomieu, Journal de Physique de Delamétherie, t. XLII.

every where, even to the centre of Africa. These remains of ancient catastrophes, have nothing in common with events belonging to historical epochs.

One plausible geographical proof has been brought forward to show that the limits of the Red Sea have been contracted. This is the position of *Heröopolis*.^a We shall discuss anew this important question, and in defending, with certain modifications, and by some new arguments, the hypothesis of M. d'Anville, against the opinions of Messrs. Gosselin and Rozière, we shall show that this hypothesis does not lead to the consequences which Messrs. Lepère and Dubois-Aymé have drawn from it with regard to the contraction of the gulf.

Some insurmountable arguments concur to place the city of *Heröopolis*, mentioned by Strabo, Eratosthenes, and the Itineraries, at Abookesheyd, in the valley of Sababhyar, to the north-west of the Bitter Lakes. We do not indeed believe this city to be identical with the *Patumos* of Herodotus,^b and the *Pithom* of the sacred Scriptures.^c The Seventy interpreters, and the Coptic translator, not only agree indeed in considering Pithom and *Heröopolis* as identical, but in confounding them with *Rameses*, the capital of the land of Goshen, the abode of the Israelites. But, as Herodotus makes *Patumos* the site of the beginning, and not of the termination of the canal of the two seas,^d it is evident that this place cannot be at a great distance from the Nile. We think that Pithom corresponds to the fortified place called Thou in the Itinerary of Antoninus, and Tohum in the Account of the Empire, a place situated at the very point at which the canal enters the desert, and where the inundations generally terminate. Herodotus having seen these places while the waters were at their height, may have believed that the canal began here; but *Heröopolis* is certainly the same city with that called *Hero*^e in Antoninus's Itinerary, and in Stephen of Byzantium. This last lexicographer gives us a formal assurance of it. The measurements of the Itinerary, in the most authentic manuscripts, correspond well with the situation of the very remarkable ruins discovered at Abookesheyd, among which is recognized a caravansera, an evidence of the busy trade which must have been carried on at that place.

In order to assist our readers in forming a proper idea of the argument, we have reduced the distances of the ancient and modern places to the form of a table.

The places, according to the ancient and modern names.	Distances in the Itinerary.		Distances measured on the hydrographic chart of Lower Egypt.
	In Roman miles.	In English feet.	
Babylonia (Old Cairo) - - -			
Heliou (Ruins of Heliopolis) -	XII	57,994	53,136
Scenæ Veteranorum (Menair) -	XVIII	86,992	68,880
Vicus Judæorum (Belbeis) -	XII	57,994	54,120
Thou or Tohum (Pithom. Ab- basah) - - - - -	XII	57,994	65,600
Hero or Heröopolis (Cherosh. Abookesheyd) - - - - -	XXIV	115,990	118,080
Serapeum (Ruins to the north of the Bitter Lakes) - - -	XVII	96,832	75,440
			229,600 by the west side of the lakes.
Clyasma (Ruins of Kolzoom to the north of Suez) - - -	L	241,647	239,440 by the east of the lakes.
	CXLVI	715,443	664,856 by the west side. 674,696 by the east side.

If it is considered that we do not know the windings of the road, and can only form an imperfect estimate of them, the coincidence between the sums total of the measurements will appear very striking. But it is farther possible to remove the disagreement of some of the partial numbers; for the Itinerary in another passage gives the distances from Heliopolis to Thou in the following manner.

Names of Places.	Distances in the Itinerary.		Distances by the Chart.
From Heliou to Scenæ Veteranorum - - - - -	XIV m. p.	67,650		68,880
From Scenæ to Thou, - - - - -	XXVI	125,719	119,720
	XL	193,378	188,600

The testimony of Strabo, or of the authors whom he has followed, is perfectly reconciled with that of Stephanus and of the Itinerary. This geographer adopts expressly a passage of Eratosthenes, which runs thus: "After the city of *Heröopolis*, which is on the Nile, we find the extremity of the Arabian Gulf."^f Thus *Heröopolis* must be situated in a place which the waters of the Nile can reach, consequently on a canal connected with that river. How could Messrs. Gosselin and Rozière overlook an authority so formal and so worthy of confidence?

The other passages of Strabo and of Pliny do not contradict one another. Sometimes it is asserted that *Heröopolis* is near *Arsinoe*, or *Cleopatris*, which is on the gulf,^g but we are not to conclude with confidence that these authors place *Heröopolis* itself immediately on the gulf. Sometimes we are told that the Heröopolitan gulf derives its name from this city, which is in its neighbourhood. But we must not give these words a meaning in contradiction with other more positive expressions. The example of the gulf of Lyons shows that it is not necessary that a city should be on the very shores of a gulf to which it gives its name.

Some mythological traditions brought forward in this discussion may furnish a subject for fresh local research. "*Hero* or *Heros*, is a city of Egypt, called also Haimos, (blood) because *Typhon* being there struck with a thunderbolt,^h stained the ground with his blood." But Herodotus tells us of a place called *Erythré-Bolos*, that is, "Red clay."ⁱ Now *Typhon* was called by the Egyptians *Rosh*, or the red, and the words "red earth," or "earth of *Typhon*," were in their language translated into *Cherosh*.^k Is it not probable that Herodotus has given a simple, and Stephanus a poetical translation of the Egyptian name of the city of *Typhon*? The true name of this city, *Cherosh*, preserved in the Itineraries, has thus been transformed by the Greeks into *Heröopolis*, or "the city of heroes." To give these connections of circumstances the force of an argument, it would be sufficient to find near the locality

^a Dubois-Aymé, sur les anciennes limites de la Mer Rouge. Descript. de l'Égypte, état moderne, I. 187, &c. Lepère, Mém. sur le canal des deux mers. Ibid. Append. II. p. 147, &c.

^b Herodot. II. 158. Steph. Byz. in voce.

^c Exod. I. 11. compare d'Anville, Mém. sur l'Égypte, p. 123, 124.

^d See the text, ἡκται δὲ ἀπὸ τοῦ Νείλου τὸ ἴδιον εἰς αὐτὴν (τὴν δεινύρα). ἡκται δὲ κατὰ πρὸς δὲ λίγον βουβάσιος πόλιος παρὰ Πάτωνμον τὴν Ἀραβίαν πόλιος.

^e The name was written Herò, like Heliùs; (Ἡλιός) the termination *polis* being understood.

^f Διότι ἀπὸ Ἡρώων πόλεως, ἧς εἰς πρὸς τὴν Νείλου, μέγος Ἀραβίης κόλπου. Geogr. lib. XVI. p. 767. Amelov.

^g Πηλαίον δὲ τῆς Ἀρσινόης καὶ ἡ τῶν Ἡρώων πόλιος, καὶ ἡ Κλεοπατρίς ἐν τῷ μυχῷ τοῦ Ἀραβίου κόλπου. Geogr. lib. XVII. p. 804.

^h Stephanus de Urb.

ⁱ Enterpe, cap. 3.

^k Hennicke, Geograph. Herodot. p. 72

which we assign to *Heröopolis*, a soil composed of red clay.

The position of *Heröopolis*, or rather *Heros* or *Cherosh*, being fixed by the Itinerary to the north-west of the Bitter Lakes, it is evident that this city never could, at least not in the time of Strabo, be found on the shores of the Red Sea. For, as the levels of the ground demonstrate, if the waters of that sea had filled the basin of the lakes and the valley Sababhyar, they would also have come in contact with those of the Nile. There would have been a real strait, and the execution of a canal would have been superfluous. But as the basin in Strabo's time communicated with the Red Sea by a canal, and could at pleasure be filled with the waters of that sea, the basin might with some reason be considered as a prolongation of the gulf, and *Heröopolis* spoken of, as the place where the navigation of small vessels commenced, as the seat of a great trade both maritime and inland, and as a city worthy of giving its name to the gulf.

Having hitherto intentionally kept Ptolemy out of view, we now proceed to comment on his evidence, which appears to be at utter variance with all the attempts at conciliation in which we have been engaged.

When the canal, neglected and deserted, no longer supported the commerce of *Heröopolis*, it is probable that the inhabitants transferred their abode to a place near the gulf itself, or rather were removed to another city which may have taken the name of *Heröopolis*, on becoming the capital of the district^a or prefecture.

This new *Heröopolis*, the only one known to Ptolemy, may have been properly placed by that geographer in a latitude a little north of Suez. We think that this second *Heröopolis*, marked in Ptolemy's tables,^b occupied a place marked by some ruins, to the north-east of the end of the gulf: which agrees sufficiently well with M. Gosselin's opinion, in the other parts of which we do not acquiesce.^c These ruins cannot belong to *Arsinoë*, surnamed *Cleopatris*, as the engineers of the French army of Egypt believed; for that city was, according to one who was probably an actual observer, situated at the end of the canal of the two seas;^d and it was in its harbour that *Ælius Gallus* collected the war galleys intended to act against the Arabians. This passage, overlooked in recent discussions, seems to fix the position of *Arsinoë-Cleopatris* to the north of Kolzoom. The small creek which forms the inner harbour of Suez, corresponds to the Charanda Gulf^e of Pliny, where this Roman geographer seems to place also the small place *Aennum*;^f probably Bir-Suez, and the *Daneon*, or lower harbour,^g which may represent the town of Suez itself.

The whole of the obscurity attached to the *Heröopolis* of Ptolemy will not be removed unless we can also fix the position of *Clyisma*, which was at first only a strong hold.^h The hypothesis of the learned M. Gosselin, of there being two places called *Clyisma*, falls to the ground with the false version of M. De Guignes, on which it was founded: it is proved that no Arabian author has said what this oriental-

ist has ascribed to Ibn-al-Vardi.ⁱ All the oriental writers acquiescing in a tradition universal among the inhabitants of the country, place Kolzoom, or Klisma, a little to the north of Suez, where Niebuhr saw its ruins. The meaning of the Greek name also shows that this fortress^k must have been situated near the sluice which dammed up the canal. The same position is assigned to it by the measurements of the Itinerary, if from *Serapéum* we follow the sinuosities of the west bank of the Bitter Lakes. The table of Peutinger seems, indeed, to place *Clyisma* beyond the canal, and also beyond the gulf; but, as the distance given in the tables would remove its situation to Arabia Petræa, twice as far south as the fountains of Moses, this obscure passage can neither support the one nor the other side of the questions now under discussion.

The name of the fortress seems to have been afterwards given to the town which it commanded. But was this town still after the Arabian conquest, the ancient *Arsinöe*, to the north of *Clyisma*, or the modern city of Suez, to the south of it? The passages quoted from the Arabian authors furnish no data on the question. At all events, in the fifth century, the name of *Clyisma* was, from the city, given also to the gulf.^l It was in imitation of the Greeks, that the Arabians said, the *sea* of Kolzoom, an observation which escaped the learned commentator of Edrisi. The name, then, might naturally be given to the chain of mountains bounding the west side of the Gulf of Suez; though we must not look there for a city of the same name.

This discussion leaving no doubt respecting the position of the city of *Clyisma*, we ask, why Ptolemy has removed it so far to the south, by placing it at least forty minutes (miles) from his *Heröopolis*? The answer is easy. He only knew the position of *Clyisma* by its distance from the *old Heröopolis*, which is not much less than forty minutes, and he transferred this same distance to the south of the *new Heröopolis*.

Ptolemy's text, thus explained, furnishes no argument for or against the contraction of the sea: It does not oppose it, for the position of the old *Heröopolis*, the principal proof of the hypothesis of the contraction, is independent of that which Ptolemy gives to the new city of that name. Nor does it favour the hypothesis; for new *Heröopolis* and *Arsinöe* were of contemporaneous existence with the fortress of *Clyisma*; the one was the capital of the nome or district, the other, like the port of Suez now, was the point of departure for ships. We have no evidence that the new *Heröopolis* was on the very shore of the gulf, and that the latter must, therefore, have retired 5970 yards,^m as Gosselin maintains.ⁿ

Having shown that the topography of *Heröopolis*, agreeable to the system of d'Anville, does not lead necessarily to the inference of a change in the shores of the Red Sea, we should now discuss the actual measures which the ancients have left us of the breadth of the isthmus. But our uncertainty respecting the value of the *stadium* renders the discussion fruitless. If the thousand stadia as-

^a "*Nöme*," (*νομος*.) the name for a district or prefecture in Egypt.—P.

^b Ptolemæi, Geogr. lib. iv. cap. 5. 7.

^c Recherches sur la Géogr. des Grecs, ii. p. 166. 183. 278.

^d Κατὰ Κλεοπατρίδα, τὴν πρὸς τῇ παλαιᾷ διόρῳγι τῇ ἀπὸ τοῦ Νείλου. Geogr. lib. XVI. p. 537. ed. Causab. "Amnem qui Arisinoen præfluit, Ptolemæum appellavit." Plin. VI. ch. 33.

^e This word seems to be Arabic, or from the Hebrew verb כָּרַח, perfodit.

^f From Aiin, a fountain.

^g From קָר lower.

^h Κασρον, φρουριον.

ⁱ Quatremère, Mém. Histor. et Géograph. I. p. 179.

^k Κλύσμα, irrigation, inundation, sometimes signifies the same as κλύσση, a gutter, a syringe. Lucian, in the *Pseudomantis*, speaking of this place, couples with it the article, τῷ κλύσματος ἰ. e. the dam or flood-gate. Strabo speaks of a κλείστος Ἐθιοπίας.

^l Philostorg. Hist. Ecclesiast. III. chap. 6.

^m 2800 toises.

ⁿ Recherches sur la Géographie, II. p. 184

signed by Herodotus were Egyptian stadia of 108 yards,^a they would bring the extremity of the gulf only to the south end of the Bitter Lakes. But these lakes being considerably lower than the surface of the gulf, the latter could not have stopped at this point, where no barrier was presented to it. The 900 stadia of Strabo, and the 817 of Marinus Tyrius, considered as Egyptian stadia, favour somewhat more the contraction of the isthmus, but without being decisive. If we reckon them as stadia of 700 to the degree, these measures support the opinion that the state of the isthmus has not altered.^b

As we must take every fact into view, we acknowledge that the march of the Israelites in leaving Egypt, has furnished an argument for a contraction of the gulf.^c This line of march would appear more probable, if we should suppose that the Red Sea extended as high as Sababhyar; we should then conceive that this fugitive tribe, coming from the neighbourhood of Abbaseh and of Belbeis, and bending their course to the desert, fell in with the sea in the neighbourhood of Heröopolis, and, in consequence of an extraordinary tide, or a violent wind, found the isthmus dry, which at present separates the Gulf of Suez from the basin of the Bitter Lakes.

This view of the matter would be very favourable to an improved interpretation of a passage^d in which the translators have made the author of the Books of Moses say, (Exodus, chap. xiv. verse 22d and 29th) that the waters stood up on the left and on the right of the Israelites like a wall, but where the text only says that the waters were like a wall, or a rampart, on their left and on their right. An army, in fact, passing between the Gulf and the Bitter Lakes would have both flanks covered in this manner.

Another argument is furnished by the pretended identity of Heröopolis with the Baal-Zephon of the Hebrew text.^e Sefhon, or Sophon, we are told, is one of the names of Typhon; and the city of Cherosh, Heros, or Heröopolis, is the city of Typhon. The Israelites, before passing the sea, encamped opposite to Baal-Zephon: that town must, therefore, have been only a short way from the shores of the gulf.

This argument, drawn from etymology, however, admits of a corresponding reply. Baal-Zephon^f literally signifies "the Lord of the North;" and may be applied to any city to the north of the termination of the gulf opposite to Ajerood, or Hagirood, which to us appears identical with the *Hachiroth* of Moses.

The narrative of the Hebrew legislator, though simple, and carrying conviction along with it, is not sufficiently circumstantial to allow us to entertain a hope of explaining it. The poetic hymn with which it is accompanied, and which contains the most important details, does not admit of a precise interpretation. All the information that these records give us in physical geography is, that in former times, as in our own, the level of the gulf was liable to considerable variation from the influence of the tides and the winds.

If the isthmus of Suez has not undergone any change within the limits of history, particularly no remarkable contraction, if a natural communication between the two

seas has never existed within the periods of human record, we know that industry has attempted to open by art, a passage which nature had denied. The forming of a canal between the two seas has been the subject of many projects and many discussions. The engineers of the French army of the east ascertained the traces and remains of a canal, with a most satisfactory precision. The canal goes from Belbeis (*Vicus Judæorum*) on the ancient Pelusiæ branch of the Nile, now the canal of Menedji, to Abbaseh, the ancient *Thou*. There it enters the narrow valley of the Toomylat Arabs,^g the level of which is from two to thirty-three feet lower than that of the Red Sea. Several portions of the bed of the canal are still in such a state of preservation as to require nothing except cleaning. It passes on to Abookesheyd, which is considered as identical with the old Heröopolis. The basin of the Bitter Lakes might have been filled at pleasure from the waters of the Nile: beyond this basin, the traces of the canal reappear in the isthmus which separates the lakes from the Red Sea, and show that the canal was continued the whole way.^h But to what age and to what potentate is this great work to be referred? We do not speak of the fabulous times of Sesostris and Menelaus. Two kings, better known in history, Necho and Psanmetichus, do not appear to have completed it. They, like Darius, were prevented by the dread of seeing Egypt inundated by the bitter waters of the Red Sea, which were known to have a higher level than the Nile. It would have been a sacrilegious act to have thus admitted the malignant Typhon into the happy empire of Osiris. The use of locks and floodgates was unknown, which would have protected the Egyptian fields from this imaginary danger. The Ptolemies, according to Strabo,ⁱ who had travelled in Egypt, completed the canal. According to Pliny, they only carried it as far as the basin of the Bitter Lakes.^k The former of these authors makes Phacusa the point at which the canal communicated with the Nile, which would suppose this canal to be a different one from that which has been recently traced. The latter gives, in Roman paces, the exact measure of the length of the canal from Belbeis to the Bitter Lakes, as well as that of the total distance of the Gulf of Suez from the Nile, both of which measurements are found correct. If so well-informed a writer believed that the canal did not extend to the Red Sea, which its vestiges show it to have done, we here find a proof that the navigation of it had been relinquished. Perhaps the sluices had not been well constructed, or it had been found more convenient and profitable to convey merchandise by the harbours of *Myos-Hormos* and *Berenice*. The emperor Adrian, who caused a canal to be formed to the east of the Nile, called *Trajanus Annis*, and which went off from Babylonia, seems to have intended it solely for irrigations, by means of which the province of Augustamnica was rendered a flourishing country.

But the Arabians, particularly El-Magrizi and El-Makyn, attest that this canal was opened again by order of the Caliph Omar, and was used for navigation from the year 644 to 767. At this time another caliph caused it to be shut up, in order to deprive a rebel chief of his supplies of provi-

^a 51 toises.

^b Rozière, *Mémoire sur la géographie comparée de l'isthme de Suez. Description de l'Égypte*, vol. I.

^c Baron Castaz, an unpublished report on the *Mémoire* of Dubois-Aymé.

^d Exod. xiv. 22, 29.

^e Numbers, chap. xxxiii. v. 7. Exod. chap. xiv. v. 2. J. R. Forster Epist. 28, 29. Hennicke, *Geogr. Herodoti*, p. 72.

^f בעל צפון

^g Wadi-Toomylat.

^h *Description de l'Égypte*, I.; *Mémoire* de M. Lepère.

ⁱ *Geogr.* XVII.

^k Plin. VI. cap. 29.

sions. The Ottoman emperors have oftener than once contemplated the re-establishment of this canal. While the French army was in Egypt, some learned discussions were maintained on the practicability and advantages of such a re-establishment. A steady and enlightened government could execute the project at a moderate expense. The value of the lands which by means of it would be brought into cultivation, would be more than sufficient to cover it. But, as the navigation would, on the one side, depend on the rising of the Nile, and, on the other, on the monsoons which prevail in the Arabian gulf; and as these two conditions do not coincide to such a degree as to allow an uninterrupted navigation, it is very probable that this canal, though highly useful and necessary for the commercial prosperity of Egypt, would produce no great revolution in the East Indian trade.

BOOK LXII.

EGYPT.

PART III.

Topographical and Political Details.

IN our physical sketch of Egypt, we traced the influence of a monotonous territory and an unchanging climate. A certain gloom will also be attached to our accounts of the cities and towns of a country which has been so often described. We must always sail along the river or its canals, always admire antique monuments which we are unable to explain, always cast a mournful look on modern towns fast hastening to destruction, surrounded by palms and sycamores. On every hand oppression, misery, distrust and discord hold possession of a country so well fitted to become the abode of happiness and prosperity.

In order to give some interest to this account, it is necessary to call to mind at every step the nations which have successively ruled this country, and have left monuments behind them. In the history of every age Egypt holds a conspicuous place. Under her Pharaohs she derived strength from the stability of her laws, and was often the successful rival of the greatest monarchies of the world. Invaded and devastated by Cambyzes, she was for 193 years either the subject or the vassal of Persia, and frequently in a state of open rebellion. The Greeks lent her their assistance, and Alexander the Great was received by her as a deliverer; perhaps he intended to make this country the seat of his empire.

For three centuries the Ptolemies made Egypt a flourishing country in commerce and the arts, and her cities under them were almost converted into Grecian colonies. Augustus united this fertile kingdom to the Roman empire, and for 666 years it was the granary of Rome and Constantinople. It formed one of the earliest conquests of the successors of Mahomet. About the year 887, the power of the caliphs was succeeded by the reign of the Turcomans, their own janissaries, whom they had called to their aid. The dynasties of the Tolonides, the Fatimites, and the Aioobites, ruled over Egypt till the year 1250.

The Mamelukes, or military slaves of the Turcoman sultans of Egypt, then massacred their masters, and took possession of the sovereignty. The Turkish dynasty, or that of the Bassarite Mamelukes, reigned till 1382. The Circassian race, or that of the Bordjite Mamelukes, ruled here till within these very few years; for Selim II. emperor of the Ottomans, after taking possession of Egypt, only abolished the monarchical form of government of these Mamelukes; he allowed an aristocracy of twenty-four Beys to remain, subjected to a stated tribute. After his death, the Mamelukes more than once threw off the authority of the Ottomans.

In 1798, the French abolished the Mameluke aristocracy, and made themselves masters of the whole of Egypt. A

great European colony now seemed to spring up in this fine country, and a fair hope was cherished for the progress of civilization. The sciences, and especially that of geography, would have derived inestimable accessions from the success of that noble project. But it was attempted during the bloody wars and jealousies by which enlightened Europe was distracted. Far from being concerted by the combined wisdom of the civilized world, and supported by its united energies, it was undertaken in subserviency to the paltry object of gratifying the selfish glory of Buonaparte, and the aggrandizement of the French nation, which had tarnished the liberal character of her revolution, and lost the confidence of every philanthropic mind by the barbarous pillage of Sierra Leone. The rival selfishness of Great Britain, aiding the views of the Sublime Porte, poured from the British Isles, from the Bosphorus, and the Ganges, numerous armies to exterminate the French army, which was too happy to take shelter under the wing of the civilized maxims of war, and return safe to Europe, to avoid falling under the ruthless sabre of the Turks. In 1801 this evacuation was effected, and barbarism again took possession of her prey. Perfidious assassinations, and merciless massacres, have signalized the contests between the Turkish government and the Mamelukes, and between the latter and the now almost independent Pasha of Egypt. A ray of improvement in the arts, and of encouragement to industry, has unexpectedly begun to glimmer amidst the arbitrary sway of the ruffian masters of Egypt; but under such patronage, permanent advancement in civilization cannot be expected.

The ancients divided Egypt according to a principle afforded them by the course of the river; into Upper Egypt, called the Thebaid, because Thebes was its capital; Middle Egypt, called also the "Seven Governments," or the Heptanomis; and Lower Egypt, or the Delta, extending to the sea.

The Arabs and Ottomans have only changed the names of these divisions:

1. Upper Egypt is called the Saïd, and includes the provinces of Thebes, Djirdjeh, and Sioot.
2. Middle Egypt is called the Vostani, consisting of the provinces of Faioom, Benissoef, and Minyet.
3. Lower Egypt is called the Bahari, or "the Maritime Country," and includes the provinces of Bahyreh, Rashid or Rosetta, Gharbyeh, Menoof, Massoorah, Sharkieh, and the Cairo district, consisting of the subdivisions of Keliobieh and Atfihieh.^a

^a These were the divisions of the country at the time of the French invasion.—M. B.

The appellation of Upper Egypt is sometimes taken in a strictly physical acceptance, and made to include all the provinces above Cairo.^a On this principle Abulfeda and Ebn-Haukal divide Egypt into two parts, the *Rif* and the *Saïd*, that is, the coast and the high country.^b Another Arabian calls these divisions Kibli and Bahari, or the south and the coast.^c But the most recent observations, by making us acquainted with a defile or contraction, separating the Vostani from the Saïd proper, incline us to prefer the usual threefold division.

We shall first take a view of the towns and remarkable localities of Lower Egypt.

The ancient glory of Alexandria is still attested by the extensive ruins by which the present city is surrounded, and in a manner concealed. It is built on a sandy stripe of land formed by the sea, along the ancient mole which once connected Pharos with the continent. Of its two harbours the most easterly seems to have lost its former advantages by the changes which the coast has undergone. The ancient promontory, the situation of the modern Pharillon, has been worn away and destroyed by the waves; its ruins have been carried into the interior of the harbour, where the vessels have also been long in the habit of discharging their ballast. The famous Pharos, built on the island (now a peninsula) of the same name, serves as a light-house at the entrance of the harbour, or rather roadstead, where vessels are frequently lost. The other extremity of the peninsula surrounds in part the western or old harbour, which is possessed of great advantages, but shut against Christians. To the south of the modern city and of the two harbours is the site of old Alexandria.

Here, among heaps of rubbish, and among fine gardens planted with palms, oranges, and citrons, are seen some churches, mosques, and monasteries, and three small clusters of dwellings, which form as it were three towns, one of which is surrounded with a wall, and called the fort. Traces are seen of ancient streets, in straight lines, and some ruins of colonades mark the sites of palaces. One of the obelisks, called Cleopatra's Needle, still stands upright. All this confused mass of ruins, gardens, and houses, is in the greater part of its circumference, surrounded with a high and double wall. The commission of the French Institute of Egypt seemed to regard this inclosure as the work of the Arabians. Such also is the opinion of Niebuhr, Wansleb, and the greater part of travellers. Pococke, however, thinks that the Arabians only built the inner wall; and Baron de Tott believes that nothing about it is modern, except some local reparations. To us this inclosure appears to represent precisely the space of thirty stadia in length, and ten in breadth, which Strabo assigns to the dimensions of the city of Alexander and the Ptolemies. Only that part of the wall which extends from the Rosetta Gate towards the Roman Tower, in a direction from east-south-east to west-north-west, seems to pass through the ancient quarter of Bruchium, which, filled with palaces and monuments, extended quite round the

New Harbour. Might not this part of the wall be the work of Caracalla, when, according to the expression of Dion the historian,^d that ferocious beast of Ausonia came to devastate and drench with blood the beautiful city of Alexandria? Even the forts which exist to the north and south of the ancient city seem to be those erected by that tyrant. We also think that many of the ruins date from the epoch of the capture of the city by the cruel Aurelian.

On the outside of the southern gate, a detached column eighty-eight feet high, forms the most commanding object connected with the city and its environs. It has been erroneously called "Pompey's Pillar," and "the Pillar of Severus." It is the great column which served as the principal ornament of the famous Serapéum, a vast building consecrated to the worship of an Egyptian divinity, and which, after the destruction of the Museum of the Ptolemies, became the receptacle of the Alexandrian library, and the resort of men of letters. Here, as in a place of safety, Caracalla feasted his eyes with the massacre of the people of Alexandria; a circumstance which, added to many others, leads us to think that both the Serapéum and the Circus were situated in a suburb without the walls of the ancient city.^e

Reduced to a population of 16,000 souls, Alexandria before the French invasion carried on a trade in which the south of Europe had a considerable share. It was the medium of all the exchange of commodities that took place between Egypt and Constantinople, Leghorn, Venice, and Marseilles.

Near Aboukir, the roadstead of which makes so conspicuous a figure in history, the coast ceases to be composed of calcareous rocks; and the alluvial lands begin. The city of Rosetta is desecrated at a distance in the midst of groves of date trees, bananas, and syeamores. It is situated on the banks of the Nile, which annually washes, without injury, the walls of the houses. Its population, like that of Alexandria, progressively declines. The houses, though generally better built than those of Alexandria, are so crazy that they would go to ruin in a few months, if they were not favoured by a climate which destroys nothing. The stories projecting successively beyond one another, render the streets dark and dismal. An island in this part of the river, a league in length, presented to M. Denon the appearance of a most delicious garden,^f but is described by Hasselquist as an insupportable place, full of musquitos and buffalos.^g

From Rosetta to Damietta the low sandy coast was not long since infested by robbers, or occupied by rude shepherds and fishermen living without law. Lake Bourlous, filled with islets, extends over a part of this country. Bety, a town situated on the side of the lake, seems to correspond to the ancient Buto. Here a learned man, well versed in Egyptian antiquities, places Elearchia or Bucoliæ, that is, the country of marshes and of buffalo-herds.^h This district bore in the Egyptian language, the name of Bashmoor, which has also been given to the third dialect of

^a Compare D'Anville, *Mém. sur l'Égypte*, p. 36. Wansleb in *Faulin*, p. 8.

^b Abulfeda, *vers. Michael*, p. 33. Compare with the notes of M. Silvestre de Sacy on Abdollatif, p. 397.

^c Notice et extraits de MMS. l. 250.

^d Dion. *Hist. Rom.* l. LXXVII. p. 1307. Herodian, l. IV. p. 158. Compare the plan of Alexandria by M. Lepère in the Atlas of the Description de l'Égypte.

^e Langlès, notes on Norden, *Voyage III.* p. 279. Silvestre de Sacy, notes on Abdollatif, p. 231—239. Zoega, de origine obeliscorum, p. 24 et 607.

^f Denon, t. I. p. 88.

^g Hasselquist, *Voyage*, p. 68.

^h Etienne Quatremère, *Recherches sur la littérature Égyptienne* p. 147. Idem, *Mémoires historiques et géographiques*, t. I. p. 220—223.



Public House in the Water Tower

VIEW OF THE CITY OF ALEXANDRIA

Engraved by J. C. Smith

the ancient language of Egypt. The savage Bashmuriens lived sometimes in their boats, and sometimes among the reeds which covered their marshy shores. Such appears still to be the condition of the people who live round Lake Bourlos. The same picture is applicable to the neighbourhood of Lake Menzaleh, where Elearchia was placed by other writers.

All the country round Damietta is filled with large rice fields, on which great attention is bestowed. The rice of Damietta is the most esteemed of any in the Levant. But the city, which according to Binos contains 30,000, and according to Savary 80,000 souls, is very dirty, almost all the inhabitants delighting in the most filthy habits of living. Their health, especially that of the females, soon languishes, and multitudes, blind of one or both eyes, are met in every corner. This city, one of the keys of Egypt, carries on a great trade in rice and other provisions. It was built in 1250, five miles and a half^a south from the site of the ancient Thamiatis, which was destroyed in the time of the crusades.^b

The coast of the ancient eastern Delta is still lower and more marshy than that between Rosetta and Damietta. Menzaleh would not deserve particular attention, were it not for its very large lake, in the bosom of which are the islands of Matharyeh, which are very populous, and covered with houses, some of brick, and others of clay. In that which is called Myt-el-Matharyeh, the hovels of the people and the tombs of the dead form one promiscuous assemblage. The houses seem rather to be dens than human dwellings.

The fishermen of Matharyeh allow none of their neighbours to fish in the lake. Constantly naked, wading in the water, and engaged in their severe labours, they are hardy and vigorous, but almost perfect savages.

On the east side of the lake are the ruins of *Pelusium*; on the south side those of the ancient *Tanis*; and on an islet in the middle those of *Tennis*. Ascending higher in the province of Sharkieh, we find the sites of *Mendes* and of *Thmuis*, ancient cities now in ruins.

Lofty minarets point out from a distance the city of Mansoorah, famous for the battle fought under its walls in 1250, in which Louis IX. was taken prisoner. We have also Mit-Gamar on the Damietta branch of the Nile; Tell-Bastah on the canal of Moez; Belbeis on that of Menedjé; Salehieh, an important military post; and El-kankah, on the borders of the desert which lies between Cairo and the Red Sea. Having passed these different places we arrive at the point of the ancient Delta, forming now the small country of Kelyoûbéh,^c rich in grain, in pastures, and in different species of trees. Its villages are large, its flocks numerous, and its inhabitants peaceable and comparatively happy. To the north of Kelyoûbéh, the ground is intersected by an infinity of small canals for irrigation. The roads, though difficult, are very pleasant; several of them are skirted with rich gardens, others lead through thick groves and immense nurseries.

The interior of the modern Delta contains the large and populous city of Mehallet, surnamed el Kebir, or "the Great." Lucas, Sicard, and Pococke, considered it as, next

to Cairo, the most important in all Egypt.^d It is built of brick on a navigable canal, and surrounded with fertile fields always under crop. Aboosir, the ancient *Busires*, formerly occupied the central point of the Delta. Samannood, or Djemnooti, the ancient *Sebennytus*,^e a large town on the river of Damietta, is famous for producing numerous and excellent pigeons.

The city of Tentah is at present one of the most considerable places in the interior of the Delta. It is the resort of pilgrims from different parts of Egypt, Abyssinia, the Hedjaz, and the kingdom of Darfoor. The inhabitants estimate the annual number of these pilgrims at 150,000. The object of these meetings is to pay their respects at the tomb of a saint called Seyd Ahmed-el-Bedaoui. Commerce derives from them some advantages.^f Kenof^g is the capital of the smiling and fertile province of Menoofieh, which contains also the city of Shiquin-el-Koom.

In the north of the Delta we must take notice of the monastery of Saint Germinian, a place of pilgrimage both for Christians and Mahometans. The surrounding plains are covered with tents; horse races are held; wine and good living animate the pilgrims; the festival continues for eight days; it brings to the place a great number of dancing women, who contribute much to the pleasures of the occasion, pleasures which are kept up day and night. In this country, the night, being cooler than the day, is more favourable to amusements.

In the corner of the Delta, adjoining to Rosetta, amidst a great number of flourishing villages, and fields covered with excellent produce, we remark the towns of Berimbal and Fooah. This last was, in the sixteenth century, the seat of that trade which has since been transferred to Rosetta.

At the place where the canal of Alexandria joins the Nile, we find the large town of Rahmanie. On another canal is situated the small town of Damanhoor, a mart for the cottons produced in the neighbouring country, and a place where, in the time of the fairs, the coarse rejoicings of the peasantry sometimes remind the spectator of the noisy orgies of ancient Egypt. Terraneh, which derives prosperity from the natron trade, is situated on the western bank of the Nile, and above it Wardan, which is twenty-four hours distant from the port of Cairo.

At last the plain no longer displays its uniform luxuriance. Mount Mokattan raises on one side its arid head, on the other we find Djizeh, with its eternal pyramids. Opposite to these monuments, the eye descries in succession, on the eastern bank of the great river, the cities of Boolak, New Cairo, and Old Cairo.

Boolak^h is the port of Cairo, where the vessels lie that come from the lower part of the Nile. It extends along the banks, and exhibits all the bustle and confusion of commerce. In the harbour of Old Cairo the vessels lie that have arrived from Upper Egypt. Some of the most distinguished inhabitants of Cairo have here a sort of country seats, to which they retire during high Nile. Between these two cities is New Cairo, called by the orientals,

^a 2 French leagues.

^b Abulfeda, Tab. Egypt. p. 24. Abulpharag. Chron. Syriac. vers. at. p. 539. Index Geograph. ad Bohad. vit. Salad. edit. Schultens, in voce Damiatia.

^c Malus, Mémoire sur l'Égypte, t. I. p. 212.

^d See Hartmann, Egyptien, p. 789.

^e D'Anville, Mém. sur l'Égypte, p. 85. Et. Quatremère, Mém. Hist. et Géogr. I. p. 503.

^f Savary, Lett. sur l'Égypte, t. I. p. 281, 282. Girard, in the Mémoires sur l'Égypte, t. III. p. 356—360.

^g "Chenouf," Menuf?

^h Bulak.

Grand Cairo, by way of eminence. The name *Kaheerah*,^a signifies "the victorious." This city lying about a mile and a half from the Nile, extends to the mountains on the east, nearly three miles.^b It is surrounded by a stone wall, surmounted by fine battlements, and fortified with lofty towers at every hundred paces. There are three or four beautiful gates built by the Mamelukes, and uniting a simple style of architecture with an air of grandeur and magnificence. According to Abd-el-Rashid; El-Kaherah, or Cairo, was built in the 360th year of the hegira, the 970th of our common era, by the caliph Almanzor, (él-Moèz-le-Dym illah ébn él Manssour,) the first of the Fatimite caliphs who reigned over Egypt. This city was afterwards joined to that of Fostat, built also by the Arabians. Ssâlahh-éd-Dyn, or Saladin, about the year 572 of the hegira, (A. D. 1176,) built the ramparts with which it is surrounded, which are 18,116 yards^c in length. But in this vast extent we find only narrow and unpaved streets. The houses, like all others in Egypt, are badly built of earth or indifferent bricks, but differ from most others, in being, like those of Rosetta, two or three stories high. Being lighted only by windows looking into back courts or central squares, they appear from the street like so many prisons. The aspect of Cairo is a little relieved by a number of large but irregular public squares, and many fine mosques. That of sultan Hassan, built at the bottom of the mountain containing the citadel, is very large, and has the form of a parallelogram; a projecting cornice goes all the way round the top of the wall, adorned with sculptures which we call gothic, but which were introduced into Europe by the Spanish Arabians.

The inhabitants of Cairo, fond of shows like all the people of large cities, amuse themselves chiefly with feats of bodily exercise, such as leaping, rope dancing, and wrestling matches; also singing and dancing. They have buffoons, whose rude pleasantries and stale puns excite the ready laugh among an ignorant and corrupt people. The *almehs*, or female improvisatores, who amuse the rich with the exercise of their talent, differ from such as exhibit to the common people. They come to relieve the solitude of the harem, where they teach the women new tunes, and repeat poems which excite interest from the representations which they give of Egyptian manners. They initiate the Egyptian ladies in the mysteries of their art, and teach them to practise dances of rather an unbecoming character. Some of these improvisatrici have cultivated minds and an agreeable conversation, speaking their native language with purity. Their poetical habits make them familiar with the softest and best sounding expressions, and their recitations are made with considerable grace. The *almehs* are called in on all festive occasions. During meals they are seated in a sort of desk, where they sing. Then they come into the drawing room^d to perform their dances or pantomimic evolutions,^e of which love is generally the ground work. They now lay aside the veil, and along with it the modesty of their sex. They make their appearance clothed with a light transparent gauze, and the spirit

of the scene is kept up by tabors, castanets, and flutes. Thus we find, in all countries, dancing and music made subservient to voluptuous indulgence, and employed as the allies of licentiousness.

On the west bank of the Nile, we find the city of Djizeh, pleasantly shaded by sycamores, date trees, and olives. To the west of this city stand the three pyramids, which, by their unequalled size and celebrity, have eclipsed all those numerous structures of the same form which are scattered over Egypt. The height of the first, which is ascribed to Cheops, is 477 feet, that is forty feet higher than St. Peter's at Rome; and 133 higher than St. Paul's in London. The length of the base is 720 feet.^f The antiquity of these erections, and the purpose for which they were formed, have furnished matter of much ingenious conjecture and dispute, in the absence of certain information. It has been supposed that they were intended for scientific purposes, such as that of establishing the proper length of the cubit, of which they contain in breadth and height a certain number of multiples. They were, at all events, constructed on scientific principles, and give evidence of a certain progress in astronomy; for their sides are accurately adapted to the four cardinal points. Whether they were applied to sepulchral uses, and intended as sepulchral monuments, had been doubted; but the doubts have been dispelled by the recent discoveries made by means of laborious excavations. The drifting sand had, in the course of ages collected round their base to a considerable height, and had raised the general surface of the country above the level which it had when they were constructed. The entrance to the chambers had also been, in the finishing, shut up with large stones, and built round so as to be uniform with the rest of the exterior. The largest, called the pyramid of Cheops, had been opened, and some chambers discovered in it, but not to so low as the base, till Mr. Davison, British consul at Algiers, explored it in 1763, when accompanying Mr. Wortley Montague to Egypt. He discovered a room before unknown, and descended the three successive wells to a depth of 155 feet.^g Captain Caviglia, master of a merchant vessel, has lately pursued the principal oblique passage 200 feet farther down than any former explorer, and found it communicating with the bottom of the well. This circumstance creating a circulation of air, he proceeded twenty-eight feet farther and found a spacious room sixty-six feet by twenty-seven, but of unequal height, under the centre of the pyramid, supposed by Mr. Salt to have been the place for containing the *theca*, or sarcophagus, though now none is found in it. The room is thirty feet above the level of the Nile. The upper chamber, 35½ feet by 17¼, and 18½ high, still contains a sarcophagus. Herodotus erred in supposing that the water of the Nile could ever surround the tomb of Cheops. In six pyramids which have been opened, the principal passage preserves the same inclination of 26° to the horizon, being directed to the polar star. M. Belzoni, after some acute observations on the appearances connected with the second pyramid, or that of Cephrenes, succeed

^a "El Qâhirah." ^b Nearly 5 kilometers, or 21 2-3 furlongs.

^c 29,300 cubits or 8500 toises French measure.

^d "Salle du festin."

^e "Ballets-pantomimes."

^f These measures differ from those in the original. "The largest pyramid, (Description des pyramides de Ghizeh, par le Colonel Grobert,) is 474 $\frac{1}{6}$ $\frac{2}{3}$ [French] feet perpendicular height, and the length of its base on the present surface is 716 feet 6 inches; but with its ancient coating, [this is denied by Belzoni,] the height of its summit, (ter-

minating in a point,) must have been 505 $\frac{3}{8}$ $\frac{6}{8}$ $\frac{9}{8}$ feet, and the length of its base 734 feet 6 inches." In the English edition, the height is given 447 feet. I have taken 477 from the Ed. Encyc. where it is compared with St. Peter's and St. Paul's, in the same proportions. Now, the height of St. Peter's is 437 feet, and that of St. Paul's 344 feet; consequently 447 feet must be an error.—P.

^g See Walpole's interesting Collection of Memoirs relating to European and Asiatic Turkey, 1817.





T. T. A. N.

Engraved by S. Walker Boston

EAST VIEW OF THE CITY OF MEMPHIS, WITH THE FAMOUS STATUE OF MINNION.

PLATE 250. 44

ed in opening it. The stones, which had constituted the coating, (by which the sides of most of the pyramids which now rise in steps had been formed into plain and smooth surfaces,) lay in a state of compact and ponderous rubbish, presenting a formidable obstruction; but somewhat looser in the centre of the front, showing traces of operations for exploring it, in an age posterior to the erection. On the east side of the pyramid he discovered the foundation of a large temple, connected with a portico appearing above ground, which had induced him to explore that part. Between this and the pyramid, from which it was fifty feet distant, a way was cleared through rubbish forty feet in height, and a pavement was found at the bottom, which is supposed to extend quite round the pyramid; but there was no appearance of any entrance. On the north side, though the same general appearance presented itself after the rubbish was cleared away, one of the stones, though nicely adapted to its place, was discovered to be loose; and when it was removed, a hollow passage was found, evidently forced by some former enterprising explorer, and rendered dangerous by the rubbish which fell from the roof; it was therefore abandoned. Reasoning by analogy from the entrance of the first pyramid, which is to the east of the centre on the north side, he explored in that situation, and found at a distance of thirty feet the true entrance. After incredible perseverance and labour, he found numerous passages all cut out of the solid rock, and a chamber forty-six feet three inches by sixteen feet three, and twenty-three feet six inches high, containing a sarcophagus in a corner, surrounded by large blocks of granite. When opened, after great labour, this was found to contain bones, which mouldered down when touched, and, from specimens afterwards examined, turned out to be bones of an ox. Human bones were also found in the same place. An Arabic inscription, made with charcoal, was on the wall, signifying that "the place had been opened by Mohammed Ahmed, lapicide, attended by the Master Othman, and the King Alij Mohammed," supposed to be the Ottoman emperor, Mahomet I. in the beginning of the fifteenth century. It was observed, that the rock surrounding the pyramid on the north and west sides, was on a level with the upper part of the chamber. It is evidently cut away all round, and the stones taken from it were most probably applied to the erection of the pyramid. There are many places in the neighbourhood where the rock has been evidently quarried, so that there is no foundation for the opinion formerly common, and given by Herodotus, that the stones had been brought from the east side of the Nile, which is only probable as applied to the granite brought from Syene. The operations of Belzoni have thrown light on the manner in which the pyramids were constructed, as well as the purpose for which they were intended. That they were meant for sepulchres cannot admit of a doubt. Their obliquity is so adjusted as to make the north side coincide with the obliquity of the sun's rays at the summer solstice. The Egyptians connected astronomy with their religious ceremonies, and their funerals; for zodiacs are found even in their tombs. It is remarkable that no hieroglyphical inscriptions are found in or about the pyramids as in the other tombs, a circumstance which

is supposed to indicate the period of their construction to have been prior to the invention of that mode of writing; though some think that the difference may be accounted for by a difference in the usages of different places and ages. Belzoni, however, says that he found some hieroglyphics in one of the blocks forming a mausoleum to the west of the first pyramid. The first pyramid seems never to have been coated, and there is not the slightest mark of any coating. The second pyramid showed that the coating had been executed from the summit downward, as it appeared that it had not in this instance been finished to the bottom.^a—The following are the dimensions of the second pyramid: The basis, 684 feet; the central line down the front from the apex to the basis, 568; the perpendicular, 456; coating from the top to where it ends, 140.^b These dimensions being considerably greater than those usually assigned even to the first or largest pyramid, are to be accounted for by those of Belzoni being taken from the base as cleared from sand and rubbish, while the measurements of the first pyramid given by others, only applied to it as measured from the level of the surrounding sand.

The largest of the numberless sphinxes found in Egypt, is in the neighbourhood of the pyramids of Djizeh; it was, at an expense of 800*l.* or 900*l.*, (contributed by some European gentlemen,) cleared from the accumulated sand in front of it under the superintendance of Captain Caviglia. This monstrous production consists of a virgin's head, joined to the body of a quadruped. The body is principally formed out of the solid rock; the paws are of masonry, extending forward fifty feet from the body; between the paws are several sculptured tablets so arranged as to form a small temple; and farther forward a square altar with horns.

Ascending the Nile we come to Sakhara, near which are many pyramids, some of them formed of brick. They are dispersed over a line of eleven miles,^c and are known by the name of the pyramids of Aboosir.^d At the foot of this chain of mausolea, lay the ancient Memphis, which has left some of the rubbish of its immense buildings at Mitrahenuo,^e and probably extending to Mohannan.^f The inhabitants carry on a traffic in mummies, the embalmed bodies of men and of sacred animals found in the excavations of the rocks. On the eastern bank is seen the famous mosque called Atsar-en-Neby, which is much frequented by the mussulmans of Cairo, who perform a pilgrimage to pay their respects to a stone marked with a perfect impression of the feet of the prophet. It is covered with a very rich veil, which the priests of the mosque raise only for the gratification of those true believers who evince their piety by means of certain offerings. Atfieh, the capital of the province of Atfieheli, is situated on the east bank, as Savary has observed, in opposition to the greater part of geographers.

At a distance of fifteen miles to the west of the Nile, the mountains open to form a valley leading into the Fai-oom, the ancient province of *Arsinoë*. The Bahr Yoosef coming from the Nile, passes through the centre of the valley in various serpentine turns till it reaches the Fai-oom. In the north part of this extensive and fine district is lake Mœris, round which the soil is barren and wild:

^a Belzoni's Narrative of Operations and recent Discoveries in Egypt and Nubia, second edition, vol. I. p. 395. 425.

^b Base 655 feet, height 398 feet.—Denon. Height of the third pyramid 162 feet, base 280 feet.—P.

^c 4 French leagues.

^d Abdollatif, p. 204.

^e Mitrahénue.

^f Compare Pococke, Description, I. p. 39—293. D'Anville, Mémoires, p. 136. Larcher, Herodotus, II. 362—366.

This lake, which is now called Caroon, is much inferior in size to what it was in ancient times, when described with enthusiasm by Strabo, as resembling the sea in its extent, in the colour of its water, and in the nature of the surrounding shores; but it is still about thirty leagues in circumference, its length being between thirty and forty miles, and its greatest breadth about six.^a Its shore towards the Faïoom is flat and sandy. The water of the lake has a slight saline impregnation, but is very well fitted for human use. It contains some fish, and thus supports a few fishermen who send the fish to be sold in the different towns.

This lake has been believed to have been an artificial excavation executed by Mœris, an ancient King of Egypt, who most probably only formed the canal by which it is filled from the Nile. Belzoni thinks that the water was retained by a dam at its place of entrance, and a second irrigation thus produced. This at least is considered by that traveller as the only way in which it could have been rendered subservient to agriculture, and thus it would resemble the artificial tanks which at present abound in India, but to the first irrigation itself the canal was necessary.^b This canal, however, has been much neglected, and the depositions of earth brought by the Nile have elevated the surface of the whole Faïoom, which, though displaying traces of its former fertility, has by the circumstances now specified, and the encroachments of the sand of the desert, been reduced to one third of its former extent. All the villages in it, except four, pay a fixed *miri*, independent of what is due at the rise of the Nile. This financial arrangement must be very ancient, and appears to have been established in consequence of the great expense at which the kings of Egypt had rendered this country habitable. At the entrance of the Faïoom is the town of Medineh, or Medinet-el-Faïoom, (the word Medineh signifying "the City;") near to which are the ruins of the ancient *Arsinoë*. These ruins contain granite columns which are only found in this place and at the pyramids, and many of them are seen among the materials of which the town of Medineh is built. In this town there are manufactures of linen, cotton, and woollen stuffs; of oil and rose water. The last article supplies the immense consumption which takes place among the great people, who keep their divans covered with it, and are in the habit of offering it to strangers. Wines also are made, but much inferior to those formerly produced in this Arsinoitic district. In this district was situated the Labyrinth so celebrated in antiquity, consisting of 3000 chambers, one half above ground, and the other half below. These have left no corresponding marks, at least none visible above ground, to render its exact situation certain. It is generally supposed to have been in the place where the ruins of the town and palace of Caroon are now found, about three miles from the western extremity of the lake. Here are to be seen the remains of a town wall, fragments of columns, and blocks of stone of middling size. The town is a mile in circumference. In the middle is the temple, which is in tolerable preservation, and is of a singular construction, different from the Egyptian, having probably been at some period altered or rebuilt. It contains no hieroglyphics. Mr. Belzoni did not believe this to be the situation of the labyrinth. That traveller visited some other

ruins of ancient Greek towns, situated in the same neighbourhood. He found among the blocks some fragments of Grecian statues and other specimens of sculpture. When the sand is removed the roofs of habitations are found, with their wooden materials in a state of preservation. This traveller thinks that the remains of the labyrinth might perhaps be discovered if it were practicable to remove the sand, but at the same time states that several ancient remains are beneath the present level of the water, that many of them must be now deeply covered by the annually accumulating depositions from the waters of the Nile, brought by the canal of Joseph, and that the celebrated labyrinth may possibly be utterly out of the reach of discovery.^c All along the west side of the lake, this traveller found a great number of stones, and columns of beautiful colours, of white marble and of granite. The Faïoom contains a town called Fedmin-el-Kumois, or "the Place of Churches," from a tradition that it once consisted of 300 Christian churches, which the Mahometans converted into a town. One part of it is inhabited by Mahometans, and the other by Copts, who live on very tolerant terms with one another; but the latter are poor, and destitute of the means of educating their children.

Vostani, or Middle Egypt, contains also Benisooef, where there is a manufacture of coarse carpeting; Minieh, the capital of a province, the territory of which is elevated above the adjoining lands; Ansana, or Ensineh, where the statues found among the ruins of Antinopolis have given rise to a notion among the Arabs that human bodies had been petrified;^d Mellavi, a prettily situated town, which annually exports 400,000 sacks of wheat; and Momfaloot, known for its manufactures.

At the town of Sahoodi is the beginning of the caverns of the Thebaid. These are quarry holes, to which the anchorites, in the first ages of Christianity, retired. They extend through a space of fifty-six miles;^e and the hieroglyphics found in them prove them to have been the work of the Egyptians, who took their marble from this place at a very remote period.

The grottos, near the city of Sioot, contain very curious antique paintings in a good state of preservation. The city, one of the largest in the Saïd, is the resort of the caravans of Nubia. Its vicinity, and that of Abootishe, produce the best opium.^f

Among other villages, we remark on the east bank Gau-Shenkieh, which has succeeded to Antæopolis. Here was a magnificent temple in honour of Antæus. The porch still remains, which is supported, according to Norden, by columns, and which appears to be of one stone, sixty paces in length, and forty in breadth. This splendid work now forms the entrance of a stable, where the Turks keep their flocks.

Akmin,^g the residence of an Arab prince, has succeeded to the ancient *Chemmis* or *Panopolis*. The ruins of the ancient city are found on the outside of the present town. Abulfeda mentions a temple built of stones of astonishing size, which he ranks among the most celebrated ancient monuments. Mere fragments, however, are all that now remain. The modern town is handsome, very commercial, and has manufactures of cotton cloth and of pottery. It

^a Browne's Travels, p. 169.

^b Belzoni's Narrative, vol. II. p. 150—152.

^c Belzoni, vol. II. p. 161—163.

^d Yakooti, Not. et Extraits, p. 245.

^e 20 Fr. leagues.

^f Notices et Extr. t. II. p. 424.

^g "Akhmym," Ekmin.

has a regular and strict police, and its territory is fertile in all sorts of produce.

Opposite to Akmin, on the west bank of the river, is the large town of Meshieh.^a Here all the boats which go from Cairo to the cataracts, or from the cataracts to Cairo, stop to take in provisions, which are plenty and cheap.

Seventeen miles^b to the south-east of Meshieh, we find Djirdjeh,^c the capital of Upper Egypt, lately the residence of a Bey, and the seat of a Coptic bishop. The city is modern, and owes its origin and name to a convent dedicated to St. George.^d It has public buildings and squares, but no monuments. It is a place of trade and industry, and the territory belonging to it is fertile.

Denderah is a place of little consequence in itself, but travellers visit it with great interest on account of a great quantity of magnificent ruins found three miles^e to the west of it. Bruce, Norden, and Savary, agree in identifying them with the ancient *Tentyra*.

The remains of three temples still exist. The largest is in a singularly good state of preservation, and the enormous masses of stone employed in it, are so disposed as to exhibit every where the most just proportions. It is the first and most magnificent Egyptian temple to be seen in ascending the Nile, and is considered by Mr. Belzoni as of a much later date than any of the others. From the superiority of the workmanship, he inclines to attribute it to the first Ptolemy, the same who laid the foundation of the Alexandrian library, and instituted the philosophical society of the Musæum. Here, Denon thought himself in the sanctuary of the arts and sciences. The columns which form the portico are twenty-four in number, divided into four rows. Within the gate, the square is surrounded with columns with square capitals; the shafts and every part of the wall are closely covered with hieroglyphics and figures in basso-relievo. On each side there is a colossal head of the goddess Isis, with cow's ears, with a simple and almost smiling expression. The ceiling contains the zodiac, inclosed by two female figures, which extend from one side of it to the other. The walls are divided into several square compartments, each containing figures of deities, and priests in the act of offering, or immolating victims. On the top of the temple the Arabs had built a village which is now deserted and in ruins.^f

As for the zodiacs or celestial planispheres found here, and their high antiquity so much boasted of, an able antiquary has shown that they could not have been prior to the conquest of Alexander.^g ^h

From Djirdjeh to Thebes, the Nile forms a great bending to the east. At the elbow nearest to the Red Sea, stands Kenneh,ⁱ the ancient *Cenopozis*, a town which once carried on an active commerce with Cosseir. According to Irwin, an English traveller, this city, which is still of considerable size, retains traces of many ancient customs. In the funeral processions, the women dance to the sound of dolorous music, and utter hideous cries. The festivals here, as in the Saïd in general, are held during the night,

and on the river. They are concluded with a spectacle, partaking of a mythological character. The dancing women plunge almost naked into the water, where they swim about like so many nymphs or naiads.^k

Keft seems to be the port of the ancient city of Kopt or Koptos, from which, according to some authors, the Copts derive their name.^l In all that country the inhabitants manufacture vessels of light and porous clay, which by allowing the water slowly to transude so as to keep up an external evaporation, communicate a refreshing coolness to that which remains. These are used through the whole of Egypt.

The village of Luxor, that of Karnak, and some others on the eastern bank, contain more ruins. The case is the same with the western side. Savary, Bruce, Norden, Browne, and Denon, concur in speaking with admiration of the ancient ruins of these places. New researches have proved that they belong to ancient Thebes, the city with a hundred gates, known to Homer, and which was 400 Egyptian stadia in circumference.^m Diodorus, who speaks of Thebes as of a city already in ruins, takes particular notice of four principal temples. He speaks of sphinxes, colossal figures decorating the entrances, porticoes, pyramidal gateways, and stones of astonishing magnitude which entered into their structure. In the descriptions given by the travellers now mentioned, and by others who preceded them, these monuments cannot be mistaken. Browne tells us, that "there remain four immense temples, yet not so magnificent nor in so good a state of preservation as those of Denderah." "It is surprising," says Norden, "how well the gilding, the ultramarine, and various other colours, still preserve their brilliancy." He speaks also of a colonnade of which thirty-two columns are still standing, of ceilings, galleries, and other remains of antiquity, which he has represented in his plates, and which he thinks the more worthy of attention that they appear to be the same that are mentioned by Philostratus in his account of the temple of Memnon.

No description can give an adequate idea of these wonders of antiquity, both in regard to their incredible number and their gigantic size. Their form, proportions, and construction, are almost as astonishing as their magnitude. The forests of enormous columns, towering high above the palm trees of the country, with their capitals gracefully adorned with the *lotus*, and the shafts covered with ornamental figures, the avenues of sphinxes miles in length, the colossi placed at the numberless gates, all produce a most bewildering impression on the mind of the admiring traveller. The temple of Tentyra, being in high preservation, pleases by the beauty of its workmanship and sculpture; but at Thebes the mind is lost in a mass of colossal objects, every one of which is more than sufficient to absorb its whole attention. On the east side of the Nile, at Karnak, and Luxor, amidst the multitude of the temples there are no tombs; these are confined to the west bank. An iron sickle was lately found under one of the buried statues nearly of the shape of those which are now in use,

^a "Méchyéh," Meschie, Memschiet.

^b 6 Fr. leagues.

^c Girgè.

^d Denon, *Voyages*, I. p. 304. Sonnini, II. p. 375.

^e A Fr. league. Half a league.—Ed. Encyc.—P.

^f Belzoni's Narrative, vol. I. p. 52—57.

^g Visconti in Larcher's Herodotus.

^h The zodiac of Denderah has been recently removed to France.—P.

ⁱ "Kéné or Ghinné."

^k Irwin's Voyage up the Red Sea. Compare with Sonnini, Denon, and others.

^l Michaelis ad Abulfedam, not. 153, p. 73. Hartmann, *Edrisi Africa* p. 519, 520.

^m Account of Thebes in the Description de l'Égypte; Monumens. vol. II.

though thicker ; it is supposed to have lain there since the invasion of Cambyses, when the idols were concealed by the superstitious to save them from destruction. Mr. Belzoni, and others, have been busily employed in uncovering and carrying away specimens of these antique remains, such as sphinxes, obelisks, and statues. On the west side of the river, at Goornoo, Medinet Aboo, and Beban-el-Malook, are numberless tombs in the form of subterranean excavations, and containing many human bodies in the state of mummies, sometimes accompanied with pieces of papyrus, and other ancient curiosities. These have been the subjects of ardent research ; and the trade of digging for tombs and mummies being found gainful, has been resorted to by numerous Arabs belonging to the place. The tombs and mummies of persons of condition are easily distinguished from those of the common people, by the care and expense displayed in preparing them ; and from the state in which they are found many interesting conclusions are drawn illustrative of the manners and customs of the ancient Egyptians, who employed their wealth in nothing more lavishly than in their mode of disposing of the bodies of their deceased kindred.

On the east side of the river, no palaces or traces of ancient human habitations are met with ; but at Medinet Aboo there are not only *Propylææ*, and temples highly valued by the antiquarian, but dwelling houses which seem to point out that place to have been once a royal residence. Mr. Belzoni found at Goornoo the ruins of a temple with octagonal columns abounding in hieroglyphics, yet so completely unique in its style, that he was led to consider it as of later date than the works of the ancient Egyptians.

With respect to the mummies, some are found in wooden cases shaped like the human body. These belonged to persons superior to the lowest rank, but differing from one another in the quantity and quality of the linen in which the body had been wrapped. The mummies of the poorest classes are found without any wooden covering, and wrapped in the coarsest linen. These differ from the former also in being often accompanied with pieces of papyrus, on which Belzoni supposes that an account of the lives of the deceased had been written, while a similar account was carved on the *cases* of the more opulent. The cases are generally of Egyptian sycamore, but very different from one another with respect to plainness or ornament. Sometimes there are one or two inner cases, besides the outer one. Leaves and flowers of acacia are often found round the body, and sometimes lumps of asphaltum, as much as two pounds in weight. The case is covered with a cement resembling plaster of Paris, in which various figures are cast. The whole is painted, generally with a yellow ground, on which are hieroglyphics and figures of green. The tombs of the better classes are highly magnificent, consisting of different apartments adorned with figures representing the different actions of life, such as agricultural operations, religious ceremonies, feasts, and funeral processions, these last being generally predominant. Their paintings, which are described by Mr. Hamilton, contain numerous articles illustrating the domestic habits of the Egyptians. Small idols are found lying about, and sometimes vases containing the intestines of the mummies, generally of baked clay painted, some few of alabaster ; there is much pottery

besides, and many wooden vessels. Mr. Belzoni found some leaf-gold beaten nearly as thin as ours. No instruments of war are found in these places. This gentleman only found an arrow with a copper point, well fixed in one end, while the other end had a notch. Figures of the scarabæus or beetle, a highly sacred animal among the Egyptians, are sometimes found executed in alabaster, verde antico, and other materials.

From the garments in which the mummies are sometimes wrapped, it appears that linen manufactures were brought to equal perfection among the ancient Egyptians as they are now among us.^a They understood the tanning of leather, of which some shoes are found. Some of the leather is stained with various colours, and embossed. The art of gilding is proved to have existed among them in a state of great perfection. They knew how to cast copper, as well as how to form it into sheets. A few specimens of varnishing are found, which show that this art, and the baking of the varnish on clay, were in such perfection, that it appears doubtful whether it could now be any where imitated. In the art of painting, they were a little behind in not giving their figures relief by shading ; but their colours, particularly the red and green, are well disposed, and produce a splendid effect, especially by candle light.^b Their drawings are always in profile. Some drawings are found preparatory to sculpturing on the walls, and others in different stages of their execution. Mr. Belzoni observed some drawings executed by learners, and afterwards corrected in faulty places by a master with a different coloured chalk. This gentleman saw in some brick buildings of the highest antiquity, evidences that the Egyptians understood the building of arches with the keystone, though their predilection for numerous columns in the construction of their large temples led them in these buildings to neglect the arch.^c Their sculptures are executed in four kinds of stone ; sandstone which is comparatively soft, a hard calcareous stone, breccia, and granite. This last is more finely polished than it could be by our present tools.

The Arabs of Goornoo lead the lives of troglodytes in the entrance of the tombs, where they choose a place of convenient dimensions, and shut up the entrance between them and the tomb with clay, leaving only a hole to creep through. Here their sheep, as well as themselves, are housed. They use lamps of sheep's tallow : the walls are black like chimneys, and human bones and pieces of mummies lie every where about them unheeded. They live almost naked, their children entirely so. They are oppressed and prevented from accumulating wealth, yet are reconciled by custom to their situation, and on the whole happy. Their women are very ambitious of such jewellery as beads, coral, and pieces of coin, and look down with pity on those who have none. A mat, a few earthen pots, and a grinding stone, are all the household furniture they require. They are exceedingly expert in the art of cheating strangers, which constitutes the height of their virtue and a great part of their industry.^d The researches of Mr. Belzoni have had the effect of enriching the British Museum with some interesting specimens of Egyptian antiquity, among which are a fine obelisk from the island of Philæ, and a colossal bust called younger Memnon. The model which he has made of an Egyptian tomb is par-

^a Belzoni's Narrative, vol. I. p. 268, &c.

^b Ibid. p. 271.

^c Belzoni's Narrative, vol. I. p. 273.

^d Ibid. p. 281, 282.

ticularly gratifying to antiquarian curiosity. While he was in Egypt, he made moulds of every individual sculptured figure, and other objects in the tomb, and a tomb is built on the same scale as the original, with *fac similes* of all its contents executed with correctness in form, relief, and colouring. It is seen by candle light, and gives precisely the same effect with the original excavation.

The ancient Hermonthis is represented by the village of Erment. In its vicinity is to be seen a large temple in a very good state of preservation, and the paintings of which represent, among other animals, the giraffe, an animal at present unknown in Egypt.^a A learned discussion has recently confirmed D'Anville's conjecture, according to which the ancient Latopolis corresponds to the modern town of Esneh,^{b c} where a temple of very high antiquity is found. This town, situated on elevated ground, where vegetation is supported by artificial irrigation, was enriched by the residence of some Mameluke beys, who spent there the money which they extorted from the cultivators of the neighbourhood. Esneh displays more luxury, and a more refined industry, than the other towns of Upper Egypt. Among other things, a great quantity of very fine cotton stuffs, and shawls called Malayéh, much used in Egypt, are manufactured here. The caravan from Senaar brings hither also the different articles of its commerce, particularly gum arabic, ostrich feathers, and ivory. Wood in this place is extremely rare.

Esneh is the last large town in Egypt. But higher up we find some interesting ruins. At Elethya there are two caverns, containing a great number of paintings, representing the customs and occupations of the ancient Egyptians, and particularly the various forms of ploughs, and other agricultural implements.^d At Edfoo is a large temple, the corridors and mysterious passages of which are still to be seen. At an elbow of the Nile, forming a harbour, we find the ruins of *Ombos* on a hill called Koom-Ombo. In the great temple, some paintings which have not been finished show that the Egyptians employed in their drawings the same geometrical methods with the moderns. They divided the surface into small squares,—a method which they also no doubt employed in geography.^e

Near Assooan are found the remains of the ancient *Syene*, consisting of some granite columns, and an old square building, with openings at top. The researches made here have not confirmed the conjecture of Savary, who conceived it to be the ancient observatory of the Egyptians, where, with some digging, the ancient well might be found, at the bottom of which the image of the sun was reflected entire on the day of the summer solstice. The observation of the French astronomers place Assooan in lat. $24^{\circ} 5' 23''$ of north latitude. If this place was formerly situated under the tropic, the position of the earth must be a little altered, and the obliquity of the ecliptic diminished. But we should be aware of the vagueness of the observations made by the ancients, which have conferred so much celebrity on these places. The phenomenon of the extinction of the shadow, whether within a deep pit, or round a perpendicular gnomon, is not confined to one exact mathematical position of the sun, but is common to a certain ex-

tent of latitude corresponding to the visible diameter of that luminary, which is more than half a degree. It would be sufficient, therefore, that the northern margin of the sun's disc should reach the zenith of Syene on the day of the summer solstice, to abolish all lateral shadow of a perpendicular object. Now, in the second century, the obliquity of the ecliptic, reckoned from the observations of Hipparchus, was $23^{\circ} 49' 25''$. If we add the semidiameter of the sun, which is $15' 57''$, we find for the northern margin $24^{\circ} 5' 22''$, which is within a second of the actual latitude of Syene. At present, when the obliquity of the ecliptic is $23^{\circ} 28'$ the northern limb of the sun comes no nearer the latitude of Syene than $21' 3''$, yet the shadow is scarcely perceptible. We have, therefore, no imperious reason for admitting a greater diminution in the obliquity of the ecliptic than that which is shown by real astronomical observations of the most exact and authentic kind. That of the well of Syene is not among the number of these last, and can give us no assistance in ascertaining the position of the tropic thirty centuries ago, as some respectable men of science seem to have believed.^f

Syene, which, under so many different masters, has been the southern frontier of Egypt, presents in a greater degree than any other spot on the surface of the globe, that confused mixture of monuments which, even in the destinies of the most potent nations, reminds us of human instability. Here the Pharaohs and the Ptolemies raised the temples and the palaces which are found half buried under the drifting sand. Here are forts and walls built by the Romans and the Arabians, and on the remains of all these buildings French inscriptions are found, attesting that the warriors and the learned men of modern Europe pitched their tents, and erected their observatories on this spot. But the eternal power of nature presents a still more magnificent spectacle. Here are the terraces of reddish granite of a particular character,^g hence called Syenite, a term applied to those rocks which differ from granite in containing particles of hornblende. These terraces, rising perpendicularly, cross the bed of the Nile, and over them the river rolls majestically his impetuous foaming waves. Here are the quarries from which the obelisks and colossal statues of the Egyptian temples were dug. An obelisk, partially formed, and still remaining attached to the native rock, bears testimony to the laborious and patient efforts of human art. On the polished surfaces of these rocks hieroglyphic sculptures represent the Egyptian deities, together with the sacrifices and offerings of this nation, which more than any other has identified itself with the country which it inhabited, and has in the most literal sense engraved the records of its glory on the terrestrial globe:

In the midst of this valley, generally skirted with arid rocks, a series of sweet delicious islands covered with palms, date trees, mulberries, acacias and napecas, has merited the appellation of "the Tropical Gardens." The one called El-Sag, opposite to Syene, is the *Elephantina* of the ancients; while the ancient *Phila* is recognized in the El-Heif of the moderns. Both of them, especially the latter, filled with beautiful remains of temples, quays, and other

^a Account of Hermonthis, by M. Jomard, in the Description de l'Égypte; Monumens, vol. I.

^b Jollais and Devilliers, in the Description de l'Égypte. Etienne Quatremère, Mém. hist. sur l'Égypte, I. p. 172.

^c "Properly Sné;" Asnah

^d Baron Costaz, Mem. sur les grottes d'Eléthya, dans la Description de l'Égypte.

^e Chabrol et Jomard, dans la Description de l'Égypte.

^f Comp. Jomard, Description de Syène et des Cataractes, in the Description de l'Égypte.

^g "Granite de couleur rose grisâtre," granite of a grayish rose colour

monuments,^a attest the ancient civilization of which they must have been the seat.

It is probable that the two names of *Philæ* and *Elephantine* were originally one, for *Fil* in the Oriental languages, signifies an elephant, and these islands, fertilized by the deposited slime of the river Nile, must, in ancient times, have attracted elephants by their rich vegetation. This ingenious conjecture explains the reason why Herodotus has not named *Philæ* in describing *Elephantine*,^b so as to give the idea that he placed it to the south of the first cataract. It explains the possibility of a former kingdom of Elephantine, a kingdom which could not be confined to a single island 1400 yards^c long and 400 broad. Julius Africanus bears testimony to its existence and duration. The Augustine history^d speaks of a king of Thebes, an ally of Zenobia. These facts, taken altogether, show that the narrow valley of Upper Egypt has, in all ages, been the treat of small and almost independent states.

From the ever memorable scenes of the valley of the Nile, we cross narrow gorges and sterile plains covered with sand, bordered by naked rocks, where even the serpent and the lizard cannot find subsistence, and where no bird dares to extend his flight,—and arrive at the no less arid shores of the Red Sea. The coasts of this sea are rich in coral, madrepores, and sea sponges. Among the reefs of coral is found the port of Cosseir. The town of this name is only a collection of old houses, and large storehouses occupied from time to time by the caravans, but without any fixed inhabitants. It labours under a want of fresh water, and the only produce of the vicinity is the coloquintida.^e

But the vast desert of the Thebaid, lying between this portion of the valley of the Nile and the Red Sea, is not equally sterile in every part. Mr. Irwin, who travelled from Kenneh to Cairo by a route which passes obliquely the northern part of this desert, found, by the sides of frightful ravines and black chasms, some valleys in which acacia bushes, covered with white and fragrant blossoms, furnished a delightful shade to the timid antelope. Some tufts of wild wheat, a date tree, a well, and a grotto, called to mind the old anchorets, who chose in these solitudes to relinquish their intercourse with a perverse world. Two similar verdant spots near the shores of the Red Sea, somewhat nearer to Suez than Cosseir, contain the monasteries of St. Anthony and St. Paul, surrounded with handsome orchards of date trees, olives, and apricots. The first of these convents has a vineyard which produces good white wine.^f

A route somewhat less gloomy leads from Cairo to Suez, a town situated on the isthmus of that name. The port of Suez has only a bad quay at which small boats can scarcely land at high water, while the vessels lie at anchor in the roads. The only supply of water that the inhabitants have is one brackish spring. The sea abounds in fish, but they are neglected by the people. All the necessaries of life are wanting in this wretched place, which is situated in a parched sandy plain, about a league from the roadstead. The fortress is of a piece with the town, consisting of some towers in a half ruinous condition.

In the most southerly part of this desert, about the latitude of Assouan or Syene, is the site of the ancient city of Berenice, delightfully situated in a plain almost surrounded by mountains, at a distance of five miles. Its ruins are still perceptible, even to the arrangement of the streets, and in the centre is a small Egyptian temple, which, as well as the insides of the houses, is nearly covered by the sand. The temple is built of soft calcareous stone, and sandstone. Mr. Belzoni found it adorned with Egyptian sculpture, well executed in basso-relievo, and carried away a tablet of breccia covered with hieroglyphics and figures. The soil of the plain is sandy, but appears susceptible of cultivation for pasture and other purposes. It contains some bushes which make good firewood. Mr. Belzoni calculated from the apparent extent of the ruins and the size of the houses, that this seaport had contained a population exceeding 10,000. It has a fine harbour with a northern entrance entirely formed by nature.

Not far from this place are the famous mountains of emeralds, the highest of which is called Zubarah, and which were visited by Mr. Bruce and Mr. Belzoni. The present Pasha of Egypt made an attempt to work the emerald mines, and had about fifty men employed as miners in the year 1818, but the mines appear to have been exhausted by the ancients. The miners were exposed to great inconvenience and risk, being supplied with all their food by caravans from the Nile, at a distance of seven days' journey. From the negligence of the purveyors it was often late in arriving; and the caravans were liable to be interrupted by the inhabitants of the desert. These miners sometimes rose against their leaders and killed them. The old excavations consisted of low galleries much obstructed with rubbish, and rendered dangerous by the looseness of the roof. The passages went very far into the mountain, along the strata of mica and of marble, and emeralds were found at a great distance from the surface, and chiefly at the place where two marble strata inclosing the mica between them, met one another.

The deserts of eastern Egypt are inhabited by some tribes of Arabs, who call themselves its sovereigns. Those who occupy the countries between the isthmus and the valley of Cosseir, receive the general name of Atonis, or Antoonis, which to us seems a corruption of that of Saint Antony, which was given to a part of these deserts. The tribes whose real names are known, are the Hooatal, who occupy the isthmus and the vicinity of Suez; the Mahazeh, who live about the latitudes of Benisooef and the monastery of St. Antony; and the Beni-Wassel who live in the latitude of Monfaloot and Minieh. All these Arabs are enemies to the Ababdeh, who rule over all the deserts from Cosseir to a distant part of Nubia.

In the topography of Egypt we must include the *oases*, which have always formed part of this kingdom. Strabo gives an excellent definition of the word *oases*. "This," says he, "is the name given in the language of the Egyptians, to inhabited cantons, which are entirely surrounded by vast deserts, in which they resemble so many islands in the midst of the ocean." The Arabs call them *Ooâhh*,^g and

^a Jomard, Description d'Eléphantine. Lancret, Description de Philæ. Girard, Mem. sur le Nilomètre d'Eléphantine, in the Description de l'Égypte.

^b Jomard, loc. cit. Compare Forster, epist. ad Michael. p. 36. Zoëga de origine obeliscor. p. 286. not. 28. Quatremère, Mém. hist. geog. I. p. 387.

^c Metres.

^d Historia Augusta.

^e Dubois-Aymé, Description de l'Égypte, I. p. 193, 194.

^f Sicard, Cartes des déserts de la Basse-Thébaïde, aux environs des monastères, &c.

^g El Wah.

in a Coptic dictionary in the royal library of Paris, we are told that, in the Coptic language, this word signifies an inhabited place.^a There are three to the west of Egypt to which this name is particularly applied. The term oâsis is somewhat ambiguous from being indiscriminately used to signify either one of these islands, or a collection of them.

The great and the small oâsis of the ancients are each composed of a certain number of spots generally separated by spaces larger than their own diameters. These places have, like Egypt itself, been described in very opposite colours by different writers. The Greeks called them "the islands of the blessed," (*Μακαρων νησοί,*) and they certainly appear delightful in the eyes of the traveller who has for days been traversing the parched and sterile desert. But the inhabitants of extensive cultivated countries have habitually viewed them with horror. They were often assigned as places of banishment. They have, for the most part, been described by grave writers in terms unusually poetic, and leaning to the lively or the dismal according to the prevailing bent of the respective authors. Even the physical delineations of them have often laboured under essential errors. Their physical character, as distinguished from the surrounding deserts, is chiefly derived from subterranean springs, by means of which vegetation is created and maintained, and a vegetable mould formed. The springs are accounted for by the high lands with which these oâses are universally surrounded. Wells are often dug to a depth of 300 and sometimes 500 feet, and the water is drawn up from them for irrigation. M. Maillet, in describing these spots, allows his imagination to be so far deceived by what he knew of the Faïoom, as to say that these oâses are watered by canals connected with the Nile. Their fertility has always been deservedly celebrated. Strabo mentions the superiority of their wine; Abulfeda and Edrisi, the luxuriance of the palm-trees; and Vansleb, the Dominican traveller, states that they exported sweeter and finer dried dates than were to be found any where else. Sir Archibald Edmonstone states that, in one of them, he passed through a beautiful wood of acacias far exceeding in size any he had ever seen, the trunks of some of them measuring more than seventeen feet in circumference.^b

The Great Oâsis, which is most to the south and the east, is formed of a number of fertile isolated spots, which lie in a line parallel to the course of the Nile, and to the mountains which bound the valley of Egypt on the west. These patches of fertile land are separated from one another by deserts of twelve or fourteen hours journey; so that the whole extent of this oâsis is nearly 100 miles,^c the greater proportion consisting of a desert. M. Poncet visited it in 1698. He says it contains many gardens watered with rivulets, and that its palm groves exhibit a perpetual verdure. According to a more recent account, it contains Egyptian ruins covered with hieroglyphic inscriptions.^d The principal town is called El-Kargeh. Here are the remains of a temple, beautifully situated in the midst of a rich grove of palm trees.^e The temple stands east and west, and a rich cornice runs all round the top. The front is covered with colossal figures and hieroglyphics.

There are several chambers still entire, containing hieroglyphics in stucco, with marks of red and blue paint; but the roof of a great part has fallen in. It seems to have been protected by a triple wall; each wall had its propylon or door way, and these are all standing. One of the *propyla* is covered over with a Greek inscription, consisting of a long rescript, published in the reign of Galba, respecting a reform in the administration of justice in this and other Egyptian territories.^f

Near El-Kargeh there is also a regular Necropolis, or cemetery, containing 200 or 300 buildings of unburned brick, chiefly of a square shape, and each surmounted by a dome similar to the small mosques erected over the graves of sheiks. One of them is divided into aisles, and has been used at one time as a Christian church, as appears from the traces of saints painted on the wall. Sir A. Edmonstone found them to be very different in form from any other cemeteries that he had seen, and represents in a plate the general aspect of this curious group of buildings.^g At distances of a few miles some other remains of ancient temples are found. This whole oâsis has always been, and still is, dependent on Egypt. It serves as a place of refreshment for the caravans, being on the route from Abyssinia and from Darfoor to Egypt. Its distance from Egypt is five days' journey, by the route from the Faïoom to the Great Oâsis, and about two days' journey west from the nearest part of the valley of the Nile. Mr. Belzoni found in the adjoining desert about thirty tumuli, some large enough to contain 100 corpses: he supposes them to contain the bodies of that part of the army of Cambyses which was sent to conquer the Ammonii in the deserts of Libya, and who were left to perish in the desert, in consequence of being betrayed by their guides. But that is a mere surmise. The question naturally arises, What set of people can we suppose to have so far interested themselves about these unfortunates as to give them interment, and collect stones over their graves? Edmonstone considers them as natural hillocks.

At the distance of 105 miles to the west of the great Oâsis, there is another which was never visited by any European before Sir A. Edmonstone in 1819, and is not even mentioned by any ancient or Arabian geographer excepting Olympiodorus. The chief town of that Oâsis is El-Cazar, beautifully situated on an eminence at the foot of a line of rocks rising abruptly behind it, and encircled by extensive gardens filled with a great variety of trees. It contains a strong sulphureous chalybeate spring, on which the inhabitants set a high value. There are some mummy pits in the caverns of the neighbouring rocks. A few miles from El-Cazar are the remains of a temple called Daer-Al-Hadjar, very much choked up with sand, like other Egyptian antiquities. But some chambers, covered with hieroglyphics, and blackened with the lamps of the ancient worshippers, are accessible, and their roof still entire. This oâsis contains in all twelve villages. The climate is extremely variable in winter. The rains are sometimes very abundant, though some seasons pass without any. Violent winds are frequent, and the khamseen in May and June is severely felt. The plague is unknown, but intermittent fevers are very common during

^a Langlès, Voyage de Horneman, &c. t. II. p. 343, &c.

^b Sir Archibald Edmonstone's Journey to Two of the Oâses of Upper Egypt, 1822, p. 44.

^c 34 French leagues.

VOL. II.—NOS. 61 & 62.

^d Annales des Voyages, t. XXI. p. 163.

^e Edmonstone's Journey to Two of the Oâses of Upper Egypt.

^f Ibid. p. 74—98. Classical Journal, Nos. 45 and 46

^g Sir A. Edmonstone, p. 105, 109.

the intense heats of summer. The soil is a very red light earth, fertilized entirely by irrigation, and producing chiefly barley and rice. The inhabitants are Bedouins. They are much exposed to the incursions of the Barbary or Mogrebbin Arabs. From this to Tripoli is thirty days' journey of ten hours each. Lions and hyænas are not uncommon. At a village called Bellata, indigo is manufactured. The dry plant is put into an earthen jar with hot water, and stirred round and worked till the colour is pressed out. The liquor is then strained through the bark of a tree into another jar, where it is left for eight or nine days. The sediment is poured afterwards into a broad shallow hole in the sand, which absorbs the water, and leaves the indigo in solid cakes. It is one of the few manufactures which the pasha of Egypt has not monopolized. This western oâsis is connected with the great oâsis to the east by a low chain of mountains, with a tableland on the top, along which travellers proceed from the one to the other. The elevation of this table land makes it comparatively cold. In the course of this track are found the dilapidated remains of a very ancient temple, called Ennamoor. The inhabitants have some vague reports about other oâses to the west and to the north, which, however, are otherwise alike unknown to them and to geographers.

The Little Oâsis is on a road that is very little frequented; Ptolemy makes its latitude $28^{\circ} 45'$. Such is the position probably of its principal place. This oâsis produces the best dates known in Egypt. According to Browne, it is a kind of head quarters for the Mogrebbin, or western Arabs, who extend as far as Fezzan, and even to Tripoli. Towards the isthmus of Suez, there is an oâsis called Korayn by the inhabitants of the country. It contains eight or ten hamlets with their gardens, and about 4000 inhabitants. In the same direction is Salehyed, another oâsis shaded by a wood six miles^a long. It contains ten villages, and about 6000 inhabitants.

Egypt, which we have described in a physical and topographic point of view, has in modern times been considered as forming part of the Ottoman empire, and, like all the great divisions of that empire, has had a pasha at the head of the government. This situation did not confer much authority, but was very lucrative. It was an object of keen solicitation at Constantinople, and generally well paid for to the intriguing characters of the Seraglio. The pasha held his place only for a year or two. When he arrived in Egypt he received great honours. He presided over the divan at certain public ceremonies; yet was only the idle spectator of the acts of the Mameluke Beys, those military chiefs who held the efficient authority in their own hands, and even dismissed the pashas if they were not satisfied with their conduct. The Porte has repeatedly submitted to this indignity. The pasha had a feeble guard of ill equipped janissaries, and undisciplined Arnauts.

The lands of Egypt were possessed as fiefs of the Grand Signior, by the *multecyms*, a sort of nobility who in Turkey Proper are called *timariots*. Almost all the fiefs of Egypt were till lately in the hands of the Mameluke soldiery and their Beys. In its internal administration, Egypt was divided into twenty-four provinces, called *Kirrats*. The command of the provinces was every year

distributed among the Beys. They made their respective circuits to enforce the payment of taxes, keep the Arabs in subjection, and maintain the police. The Bey possessed of most influence generally resided at Cairo, with the title of Sheik-el-Beled, (Sheik of the country.)

The revenues were of two descriptions; those which belonged to the government, and those which belonged to the Mamelukes. The first comprehended the *miri*, or territorial tax, paid either in money or in produce; the customs; the duties on inland commerce; the rent of certain mines;^b and the kharadjeh, or capitation tax paid by foreigners. These revenues were charged with the expenses of government, and the surplus was required to be sent to Constantinople; but the different agents, from the receivers up to the Beys, managed so well, that the Grand Signior seldom touched any part of all these imposts. They even charged to his account expenses incurred by repairs of buildings and canals which never were executed.

The revenues of the Beys were composed not only of whatever they received from the villages assigned to them, but also of what they could extort in numberless ways. It is generally believed that the Mamelukes drew from Egypt in public and private revenues, about a million and a half sterling.^c While the French were in possession of the country, they varied from year to year according to the state of the war. General Reynier valued them at from twenty to twenty-five millions of francs, (from 833,333*l.* to 1,041,666*l.*)

The population of Egypt has often been rated at two millions and a half: but it has never been numbered, and we do not even know whether this estimate includes the Arabs who occupy so great a part of the country.

The power of the Mamelukes received from the French invasion a serious shock, from which it has not been able to recover. The Arnauts, or Albanian troops, who came to subjugate the country to the Turks, sought to seize it as a sovereignty for themselves. Egypt was distracted by numerous parties, and seemed to long for another European invasion. But a pasha of energetic character arrived, who stuck at no cruelty or perfidy in the execution of his policy, and, having brought the Mamelukes together into his palace under the pretext of an entertainment, put them to the sword. Those who had the good fortune to escape fled to Nubia, where they established themselves first at Ibrim, and attempted to make a stand. Driven from that place by the arms of the pasha, they retreated to Dongola to the number of 500, where they armed 4000 or 5000 negro slaves, and surrounded their city with a wall. At their head was Osman Bey Bardisi, who is said to have made a vow never to shave his head or his beard till he should enter Cairo in triumph. It appears, however, that in consequence of the farther extension of the warlike operations of the pasha Mahomet Ali, they have been forced to leave that station, have been reduced to an insignificant number by war and hardships, and that their slender remains had found their way to the kingdom of Darfoor, where their restless character was likely to procure their speedy annihilation.

These famous Mamelukes, the tyrants of Egypt, were, as is well known, military slaves purchased by the Fatimite Caliphs, to form their body guard. Notwithstanding the influence which the Turks exercised on the civil ad-

^a More than 2 Fr. leagues.

^b "Exploitations

^c "35 to 40 millions of francs."

ministration, the Mameluke body maintained its own military organization, and was always recruited in the same manner. Turkish merchants brought to Egypt slaves collected from different countries. Some were Germans and Russians; the greater part were from the Caucasian countries, from Georgia and Circassia, and were generally from fifteen to seventeen years old. The Mameluke chiefs always purchased some of them. These children were employed in personal attendance on their masters, who gave them an education entirely military. Each styled his master father, and was regarded as a part of his family.

When a master in reward of their services gave them their freedom, they left his house, taking with them some property: often he married them to one of his slaves. They were always ready to obey him, and followed him in war. The great badge of their liberty was permission to let the beard grow.

The spirit of the corps quite extinguished the sentiment of parental affection. The children of Mamelukes only succeeded to the personal effects of the father, never to his rank and power. A child reared by the women in the harem was an object of contempt. Perhaps that mode of thinking arose from an observation verified by long experience, that in Egypt foreign races degenerate like exotic plants in the second or third generation.

In general, the wives of the Mamelukes lived like those of the Osmanlis; for their husbands were equally jealous. But, as the children could never succeed to the situations or the titles of their fathers, they were less addicted to the delights of maternal fondness, and all those who could dispense with the privilege of becoming mothers took the requisite means without attaching to the act any notion of criminality.

The government is now more completely Turkish in its character than under the Mamelukes. The pasha in many of his acts disregards the Grand Signior, in this respect resembling most other Pashas placed in his commanding situation; but he does not declare himself independent. On the contrary, he lays his conquests at the feet of the Sultan's throne, as in the instance of his victory over the Wahabees, and the deliverance of Mecca, when he sent the captive chief of that formidable sect to Constantinople to give the supreme powers the pleasure of beheading him. For this he received the distinguishing title of Khan, which carries with it a perpetual immunity from the risk of judicial decapitation. His troops are chiefly Albanians, and Syrian cavalry, and, like other Turkish armies, occasionally prone to formidable mutinies, one of which lately occurred among the Albanians, while Mr. Belzoni was in the country,^a and was attended by a dreadful state of lawless disorder, more especially at Cairo and in its neighbourhood. It arose from an attempt on the part of the pasha to introduce European discipline and tactics, and it was only on abandoning that design that the soldiers were appeased, and the pasha's own security for power and life restored. The energy of that ruler, however, has created a greater degree of order in the country than had ever before existed in modern times. His police is vigilant, and Europeans can consequently travel here with safety, without being subjected to those dangers and indignities which

formerly rendered a journey through Egypt a scene of perilous adventure and perpetual suffering. This regularity is kept up by a system of summary justice in cases of murder, and other lawless acts. The pasha encourages the introduction of European improvements, wherever the prejudices and the established and immediate interests of the natives do not present an unsurmountable obstruction; but that is not always the case even in the most civilized states. He has introduced the fabrication of gunpowder, the refining of sugar, the making of fine indigo, and the silk manufacture, from which he derives great advantage. He is always inquiring after novelties in experimental philosophy, as well as the economical arts. He is very active, and constantly in motion. His leisure time is mostly spent at Soubra, a pleasure-house furnished with delightful gardens, three miles from Cairo, where one of the quondam Mamelukes who had been faithful to him, and recommended himself by his knowledge of agriculture and his general intelligence, occupies the situation of governor.

The Copts may be regarded as the rightful proprietors of Egypt. They bear the same relation to the Arabs that the Gauls did to the Franks under the first race of the French kings. But the victors and the vanquished have not been amalgamated into one national body. The Arabs in their fierce intolerance reduced the unhappy Greeks and Egyptians to a state of oppression. They thus forced them to live separate from themselves, forming a different nation, ruined, and almost annihilated. They did not, however, peremptorily insist on the alternative of conversion or extermination and exile, as the Romish Christians did with the Arabian Mussulmans in Spain; and the talent for writing and keeping accounts which the Copts possessed proved the means of earning a livelihood, and thus keeping up the existence of their race.^b The Arab, who knew no art but that of war, saw that he had an interest in preserving them. The present number of Copts is estimated at 30,000 families, or according to other data 200,000 souls. They are scattered partly over the Delta; but they live principally in Upper Egypt. In the Saïd they are sometimes almost the exclusive inhabitants of whole villages. They are the descendants of the ancient Egyptians, mingled with the Persians left by Cambyzes, and the Greeks left by Alexander and the Ptolemies.

According to the concurring testimonies of travellers, the Copts are distinguished by a darker complexion than the Arabs, flat foreheads, and hair partaking of the woolly character; the eyes narrow, and raised at the angles; high cheeks; short, though not flat noses; wide unmeaning mouths, far from the nose, and surrounded with rather thick lips; thin beards, want of grace in their shape, bandy legs ill adapted for agility, and long flat toes.^c

Eight or ten centuries ago the Copts spoke a peculiar language, which is still employed in their worship. It is a relict of the ancient Egyptian, mixed with many Arabic and Greek words. Though generally superseded by the Arabic in common conversation, it is still commonly used in the Coptic town of Nagadeh.^d Two dialects of this idiom, the Memphitic or Bahiritic and the Sahidic, are known to us by different religious books written in them: a third, the Bashmooric, has occasioned great discussions among

^a Belzoni's Narrative, vol. I.

^b In the original, "preserved them from total destruction;" that is, it was the motive which influenced the Arabs not to exterminate them.—P.

^c Voyage de Denon, t. I. p. 136. Planche, 108. No. 23. Wansleb. Volney.

^d Information from a native Copt.—Fr.

philologists, and they are not yet agreed about its nature and origin.^a The general character of the Coptic language consists in the shortness of its words, which are often monosyllables, in the simplicity of their grammatical modifications, and in the circumstance of expressing genders and even cases by prefixed syllables, and not by terminations.^b Compared with all other known languages, it has only been found to have some feeble indications of an ancient connection with the Hebrew and the Ethiopian. Without any foreign derivation, or known affinities, it seems to have an origin and formation of its own. The theocracy of ancient Egypt perhaps created a new and arbitrary language for the nation, which it was the object of that body to isolate from all its neighbours. The Coptic alphabet, though evidently modelled on the Greek, contains some characters belonging to the ancient alphabet or alphabets of Egypt.^c The Copts, at first attached to the ceremonial of the Great Eastern Greek Church, were drawn off by the sect of the Eutychians or Jacobites, whose creed confounds under one the two natures of Christ. Circumcision, though not viewed as a religious ceremony, is practised among them as contributing to cleanliness. The patriarch of Alexandria gives himself out as the successor of St. Mark the evangelist, whose body, or the head at least, the Venetians pretended to have removed. Acute, sober, avaricious, and grovelling, the Copts of the towns succeed in matters of business, and make themselves useful to the ignorant Mameluke and Turkish governments.

These characters furnish evidences of the identity of this nation with the ancient inhabitants of Egypt, who under the Ptolemies and the Cesars, necessarily mingled with the Greeks, the Syrians, and the Romans. Some have derived the term Copt from the name of the city Koptos in Upper Egypt; but that city seems never to have enjoyed any distinction, being only one of the nine residences of their bishops. Others have identified the term with a Greek word signifying circumcised.^d But it is not probable that the Copts themselves would adopt a nickname of that kind. The most probable opinion is, that it is identical with *Ægyptius*, which was also written *Ægyptios*,^e and in which the first syllable is an article. It is the same with the term *kypt*, *kibt*, or *kebt*, employed by the Copts as a designation for their country.^f Homer seems to have given the name of *Ægyptos* to the Nile;^g and, according to Herodotus, Thebes, the ancient capital, was called *Ægyptus*;^h which at least serves to prove that this term was equally indigenous with that of *Chymi* or *Chemi*, by which the Egyptians habitually designated their country.ⁱ

After the Copts come the Arabs, the most numerous of the inhabitants of modern Egypt; distinguished by a lively and expressive physiognomy, sunk, dark, and sparkling eyes, a general angularity of form, short pointed beards, thin lips habitually open and showing fine teeth, muscular arms, the whole body more remarkable for agility than

beauty, and more nervous than handsome. Such is the pastoral and more civilized Arab.^k The Bedouin, or independent Arab, has a wilder physiognomy. The Arab cultivators, including all who live in the country, such as the sheiks or heads of villages, the fellahs or peasants, the boufakirs or beggars, and the artisans, being more mixed and of different professions, present a character less distinctly marked.^l—The Turks have graver features and sleeker forms, thick eyelids allowing little expression to the eyes, large noses, handsome mouths, good lips, long bushy beards, lighter complexions, full necks, a grave and indolent habit of body; and in every thing an air of weight which they associate with the idea of nobleness. The Greeks, who must now be classed as foreigners, give us an idea of the regular features, the delicacy, and the versatility of their ancestors: they have the character of shrewdness and roguery in their transactions. The Jews, who have the same physiognomy as in Europe, but among whom some handsome individuals, particularly among the young, remind us of the head consecrated among painters as a representation of Jesus Christ, are, as every where else, devoted to the pursuits of commerce. Despised and incessantly buffeted about without being expelled, they compete with the Copts in the large towns of Egypt for situations in the customs, and the management of the business of the wealthy.

Nothing could be more curious than to see alongside of Arabs, who are a people rigidly attached to the distinctions of hereditary rank, a numerous class whose respect was all reserved for the purchased slave whose relations were unknown, and whose bravery, or other personal qualities, raised him to the first honours in the country. “I have heard,” says General Reynier, “both Turkish and Mameluke officers say of persons who occupied great posts, ‘He is a man of the best connections; he was purchased.’”^m On the contrary, the sheiks of villages, as soon as they are rich enough to have a household, and a certain number of horsemen, get a genealogy made out, which makes them to descend from some illustrious personage.

Besides the various alliances which subsist among tribes, the Arabs have leading parties, which may be considered as so many confederacies, and are headed by powerful sheiks. Some of these are found even in the heart of the Delta. “The inhabitants of the villages,” says M. Girard,ⁿ “form two hostile parties, who do every thing in their power to injure each other. They are distinguished by the appellations of the Saad and the Hharam. In the civil wars which desolated Arabia in the 65th year of the hejira, under the caliph Yezyd-ebn-Ma’ouyeh, the two armies used these words as their respective watchwords during the night. They were the family names of their respective chiefs. The combatants and their posterity adopted them ever after, and under them perpetuated their discords. The Arabs, who have at different times come to settle in Egypt, brought along with one or other of these names a blind hatred towards the opposite faction.

^a Quatremère, Recherches sur la littérature Egypt., p. 173, 174. Idem. Mem. Géogr. et Histor. sur l’Egypte, I. p. 235. Muntzer de indole versionis Sahidicæ.

^b Vater, in Adelung’s Mithridates, t. III. p. 87.

^c Zoëga, de orig. et usu obeliscorum, sect. IV. ch. 2. p. 424—463. p. 497. Tychsen, Biblioth. de l’ancienne littérature, ch. VI. Silvestre de Saey, Champollion, Akerblad, &c.

^d Du Burnat, Nouv. Mém. des Missionn. II. p. 13.

^e Masius in Syror. peculio, quoted by Brerewood, Recherches sur les Langues, ch. 23. Des Coptites.

^f D’Herbelot, Biblioth. orient. See Keht and Kibt.

^g Schlichthorst, Geogr. Homeri. CXLI.

^h Herod. Euterpe in princ. p. 59. editio H. Stephani.

ⁱ Kircheri, Prodromus Coptus, p. 293.

^k Denon, Pl. 109, No. 4.

^l Idem. Pl. 9, fig. 1; Pl. 107, fig. 5; Pl. 106, No. 1.

^m Reynier, l’Egypte, p. 68.

ⁿ Mém. sur l’Egypte, III. p. 358.

Some particular traits distinguish the Egyptians from the other Orientals. A country frequently laid under water makes the art of swimming a valuable acquisition. The children learn it at play, even the girls become fond of it, and are seen swimming in flocks from village to village with all the dexterity of the fabled nymphs.^a At the festival of the opening of the canals, several professional swimmers publicly exhibit their skill in presence of the pasha. Their evolutions are executed with surprising vigour. They sometimes float down the river on their backs with a cup of coffee in one hand, and a pipe in the other, while their feet are tied together with an iron chain.^b The Egyptians are well acquainted with the art of training animals. Saddled goats are seen carrying monkeys on their backs, and asses as well trained and as docile as English horses. Carrying pigeons were more common here than in any other part of the east. In the 17th century the governor of Damietta corresponded with the pasha of Cairo by means of these winged messengers.^c Mallet mentions this as a practice which had fallen into disuse.^d The most astonishing phenomenon of this description is the power which certain persons have of handling and governing the most venomous serpents. The modern *Psylli* are not inferior to the ancient. They suffer vipers to twine round their bodies; they keep them in the folds of their shirts; they make them go into bottles, and come out again: sometimes they tear them with their teeth, and eat their flesh.^e The secrets on which these practices depend are unknown: they are founded on address and observation, though the Orientals ascribe them to magic.^f

In order to complete our picture of modern Egypt, we shall give a brief view of its trade and manufactures.

It is chiefly at Balass in Upper Egypt that the earthen jars, hence called balasses, are manufactured. These manufactures supply not only the whole of Egypt, but Syria and the islands of the Grecian Archipelago. They have the property of allowing the water to transude gradually, and thus keep up a refreshing coolness by its evaporation. The manufacture not being expensive, they are sold so very cheap that the poorest person can command as many as he wants, and they often enter among the materials for building the walls of houses; nature furnishes the raw clay in a state ready for use, in the adjoining desert. It consists of a fat, fine, saponaceous and compact marl, which only requires moistening and working up to become pliable and tenacious, and the vessels which are turned from it, after being dried and half baked in the sun, are in a few hours completed by the heat of a slight straw fire. They form rafts of them, which are described by all the travellers in Egypt. Such is the stability of the habits, customs, and arts in this singular country, that M. Denon observed jars of the same sort, of the same shape, employed for the same purposes, and set on the same tripods, in hieroglyphic paintings, and in representations contained in manuscripts.

In Sioot and the neighbourhood, a considerable quantity of linen is manufactured; at Djirdjeh, Farshyoot, and Kenneh, cotton stuffs and shawls of a much closer fabric. The cotton manufactured in these three places is brought from Syria and the Delta, that which is produced in the

country being only employed at Esneh, where the hand-somest cotton cloths of Upper Egypt are made. From this part of the country there is a considerable exportation of grain, linen, and cotton stuffs, and different sorts of oil. It receives in exchange rice and salt from the Delta, soap, silks, and cotton stuffs from Syria, and different European articles, such as iron, lead, copper, woollen cloths, and tar.

It is only in Faïoom that rose water is made. When the roses are plenty, thirty sets of apparatus are employed at Medineh for distilling them. The apparatus is very simple. The same place also contains manufactures of woollen, cotton, and linen stuffs, and shawls. Sometimes 8000 shawls are exported from this place in a month.

The caravans from Abyssinia travel northward through the desert, on the east of the Nile, as far as Esneh. They bring ivory and ostrich feathers; but their principal trade consists in gum and young slaves of both sexes. Cairo is their ultimate destination, and the place where their sales are completed. They carry home Venetian glass manufactures, woollen robes, cotton and linen stuffs, blue shawls, and some other stuffs which they purchase at Sioot and at Kenneh.

The Ababdeh and Bisharieh tribes also come to Esneh for metals, utensils, and such grain as they require. They sell slaves, camels, acacia gum which they gather in their deserts, and the charcoal which they make from the acacia trees; but the most valuable commodity which they bring is senna, which they gather in the mountains between the Nile and the Red Sea, in the latitude of Syene, and farther south, where it grows without culture. The inhabitants of Goobanieh, a village four hours' journey below Syene, on the left bank of the Nile, form, every year, in company with the Ababdehs, a caravan, which goes into the interior of the deserts which lie south-west from the first cataract, to collect alum, which was formerly a considerable part of the exports of Egypt.

The trade to Cosseir, on the shore of the Red Sea, is only a feeble remnant of that by which Egypt was once enriched. The exports are wheat, flour, barley, beans, lentils, sugar, carthamus flowers, oil of lettuce, and butter. The importations are coffee, cotton cloth, Indian muslins, English silks, spices, incense, gums, and Cashmere shawls. This trade is conducted by persons going on their pilgrimage to Mecca.

Two caravans arrive every year from Darfoor, each composed of 4000 or 5000 camels, led by 200 or 300 persons, who bring to Sioot and to Cairo elephants' teeth, rhinoceros' horns, ostrich feathers, gum-arabic, tamarinds, natron, and slaves, the number of which averages 5000 or 6000 annually, chiefly young girls or women. One author says that the number of slaves sometimes amounts to 12,000, and that of the camels to 15,000.

Egypt also receives caravans from Syria, from Barbary, and from Sennaar. Those from Syria bring cottons, tobacco, silk and woollen stuffs, wax, honey, dried raisins, and other objects of consumption. The caravans from Sennaar are smaller than those from Darfoor, and bring nearly the same articles, together with civets, and the teeth and skins of the hippopotamus.^g

^a Tott, Mémoires, t. IV. p. 60. Savary, Lettres, t. I. Sicard, Nouv. Mém. II. p. 190.

^b Wansleb, deux Voyages, p. 279.

^c De la Valle, p. 128. Monconys, p. 205.

^d Mallet, Descript. de l'Égypte, II. p. 267.

^e Idem. I. p. 132. Savary, Thevenot.

^f Hasselquist's Travels, p. 76—80. (in German.)

^g Mém. sur l'Égypte, IV. p. 81.

Such is the present languishing condition of Egypt, that still a civilized and happy country in comparison of some celebrated country which was once covered with towns, others in Africa which are immediately to come under our review. Yet Egypt is

Table of Geographical Positions, astronomically observed by M. Nouet.

Places.	Long. E. from Lon.			Lat. N.			Places.	Long. E. from Lon.			Lat. N.		
	deg.	min.	sec.	deg.	min.	sec.		deg.	min.	sec.	deg.	min.	sec.
Aboo-el-Sheik, (on the canal of Suez)	31	52	16	30	31	10	Medinet-Aboo, (ruins of Thebes)	32	37	47	25	42	58
Alexandria, (at the Pharos)	29	55	45	31	13	5	Minieh, - - - - -	30	49	37	28	5	28
Antinoë, (ruins of)	30	55	29	27	48	15	Omfarêge, (mouth of Lake Menzaleh)	32	31	54	31	8	16
Belbeys, - - - - -	31	33	8	30	24	49	Palace of Memnon, (ruins of Thebes)	32	38	21	25	43	27
Beni-Sooef, - - - - -	31	13	0	29	8	28	Pyramid north of Memphis, - - -	31	12	17	29	59	5
Damietta, - - - - -	31	50	0	31	25	0	Kaoo-el-Koobra, (town and temple)	31	32	9	26	53	33
Denderah, (temple)	32	40	57	26	8	36	Kenneh, - - - - -	32	45	15	26	9	36
Dybeh, (mouth of Lake Menzaleh)	32	8	0	31	21	24	Rosetta, (north minaret)	30	28	50	31	24	34
Edfoo, (town and temple)	32	53	59	24	58	43	Suez, - - - - -	32	35	50	29	58	37
Ësnch, (town and temple)	32	34	56	25	17	38	Salehhiyeh, - - - - -	32	0	15	30	47	30
Djirdjeh, - - - - -	31	55	42	26	20	3	Syené, - - - - -	32	55	4	24	5	23
Hoo, - - - - -	32	21	12	26	11	20	Sioot, - - - - -	31	13	35	27	10	14
Isle of Philæ, (temple above the cataracts)	32	54	31	24	1	34	Tannis, (island of Lake Menzaleh)	32	12	30	31	12	0
Cairo, (house of the Institute)	31	18	45	30	2	21	Tower of Aboo Gir, - - - - -	30	7	16	31	19	44
Karnac, (ruins of Thebes)	32	39	49	25	42	57	Tower of the Janissaries, (Cairo)	31	19	58	50	2	8
Koom-Ombo, (temple)	32	59	24	24	27	17	Tower of Boghafeh, - - - - -	31	53	36	31	21	41
Lesbeh, - - - - -	31	52	35	31	29	8	Tower of Boghaz, - - - - -	31	52	22	31	30	7
Longsor, (ruins of Thebes)	32	39	53	25	41	57	Tower of Maraboo - - - - -	29	49	56	31	9	9

We shall not undertake to give a comparative tabular view of the ancient and modern divisions of Egypt. For such a task we have not sufficient data. The reader who wishes for such information as history affords on this subject, may consult a work by the learned M. Champollion, entitled, "l'Égypte sous les Pharaons."

BOOK LXIII.

NUBIA, ABYSSINIA, AND THE COASTS OF BEJA AND HABESH.

WE have described the region of the lower Nile, with a minuteness corresponding to its great celebrity. Our survey of the countries situated on the higher parts of the course of this river will be somewhat more rapid. In the present state of our knowledge, it is proper to exclude from this division the countries yet unknown which are watered by the Bahr-el-Abiad, before it joins the Nile of Abyssinia. The region now to be described, being thus restricted, will correspond to the *Æthiopia supra Ægyptum* of the ancients, a country concerning which ancient history furnishes us with some scattered lights, such as the accounts contained in the history of Herodotus, the researches of Strabo, the travels of Artemidorus and Agatharchides, to which are to be added the inscriptions of Adulis, which are monuments of the expeditions of one of the Ptolemies, or of an Abyssinian king,^a and the information given by Pliny the naturalist, as stated in our History of Geography.

The first country which is entered by a person ascending the Nile, above the first cataract, is NUBIA, a most extensive region, the boundaries of which are vague and uncertain. Bakooi makes it thirty days' journey in length, along the east bank of the Nile.^b Edrisi, who most probably includes Sennaar under the same name, says that two months are required for crossing Nubia,^c an account which in that case coincides with the journals of Poncet and Bruce.

While authors differ widely in several other particulars relative to Nubia, they all agree respecting the physical character of the country. From January to April it is scorched up with insupportable heats. The rainy season lasts from June to September, but with frequent irregularities. The thermometer sometimes reaches 119 degrees of Fahrenheit, and the burning sands render travelling impracticable except by night.^d The high lands consist entirely of frightful deserts. That which is called the Desert of Nubia extends on the east of the Nile from Syene to Gooz. The traveller constantly journeys either over deep sand or sharp stones. In several places the ground is covered with a stratum of rock-salt, or strowed with masses of granite, jasper, or marble. Now and then we find a grove of stunted acacias, or tufts of colocynth and of senna. The traveller often finds no water to allay

his thirst, except what is brackish and putrid, for the murderous Arab, the sanguinary Bishareen, the fanatical Jahalee, the Takakee, and the Shaigee, lie in ambush near the few springs which the country contains.^e The western desert, less arid and less extensive, is known by the name of Bahiooda. Between these two solitudes, condemned by nature to an unvarying and utter sterility, lies the narrow vale of the Nile, which, though deprived of the advantages of regular inundations in consequence of the height of the surface above the river, has some districts, and more particularly some islands, in which a high degree of fertility rewards the industry of those who raise by artificial means^f the waters of the river.^g The southern parts of Nubia, watered by the Tacazzé, the Bahr-el-Azrek, and the Bahr-el-Abiad, present a very different appearance. Under the shade of close forests, or on the verdant surface of vast meadows, are seen sometimes the heavy buffalo, sometimes the fleet gazelle. Frequently, however, the extreme heat, the rains, and the formidable swarms of the tsaltsalya fly, spread desolation over those countries, which belong to the kingdom of Sennaar. The dourra and the bammia, (the last of which is described by Prosper Alpinus,) are the principal sorts of grain, though wheat and millet are also cultivated. Two sorts of senna are exported; but the sugar cane, which abounds along the course of the Nile, is not turned to any account. The ebony tree predominates in the forests,^h which also contain many species of palms.

The *Acacia vera*, (*Mimosa nilotica*,) from which the gum is obtained, extends from Egypt to Darfoor. Pliny seems to reckon the large wild cotton tree among the trees of Nubia.ⁱ About the ancient Meroë apple trees, according to Strabo, ceased to prosper, and the sheep were covered with hair instead of wool.^k Elephants, rhinoceroses, gazelles, ostriches, and all the African animals, perhaps even the giraffe,^l are to be seen in Nubia. The gold of Sennaar is sometimes mentioned; but, though Ibn-al-Ooardy says that there are mines of this metal in Nubia, it is impossible to determine their situation. The famous mountain of emeralds, which was said to be in Nubia, belongs to its northern part, or rather to the south of Egypt. It is called Zubarah, and is not far from the Red Sea. Of these mines, in their present state, we have already given an account. Strabo and Diodorus tell us that the ancient *Meroë*, which

^a Compare the account in the History of Geography with the observations of Mr. Salt, and with Silvestre de Sacy's Mém. sur l'Inscription d'Adulis.

^b Notes et Extr. de MSS. de la Biblioth. du Roi, II. 396.

^c Edrisi Clim. I. 4. Hartmann, Comm. de Géog. Edrisi, p. 50.

^d Abulfeda, Africa, ed. Eichorn. Arab. p. 29.

^e Bruce, I. VIII. ch. 11 et 12.

^f "By large wheels," sakies.

^g Poncet, Lettres édif. t. IV.

^h Plin. I. VI. cap. 30.

ⁱ Idem, lib. XIII. cap. 12.

^k Strabo, lib. XVII. p. 565. Casaub.

^l Bar-Hebræus, quoted by Bruns, Afrika, II. 6.

corresponds with Southern Nubia, contained mines of gold, of copper, and of iron.^a

It would be vain to attempt to give any precise account of the political subdivisions of a country so little known, and involved in so wild a state of anarchy. We shall merely give a few rapid sketches on the subject. Turkish Nubia extends from Assooan, or *Syene*, to the fort of Ibrim, (or Ibrahim,) which Father Sicard dignifies with the title of its capital.^b The power of the beys or pashas of Egypt over this remote district, has always been uncertain and temporary. At present the energetic and enterprising pasha Mahomed Ali has extended his arms to a great distance up the Nile, having subdued the whole of Nubia Proper, and even taken Sennaar.

Egyptian Nubia contains, along the banks of the Nile, numerous monuments of ancient art, as temples, obelisks, and statues. Some of these monuments are Egyptian, others Grecian.

At Taffa, the granite rocks rise prurupt on each side of the Nile, the chain crossing it at this place, and appearing as if a passage had been cut through it for the river. At Katabishé there are ruins of some Sarazenic houses, and an elegant Egyptian temple, thought to have been built in the time of the Ptolemies; in that neighbourhood the ruins of a small Grecian temple are observed, which has been overturned by violence. Lately a golden Grecian lamp was found buried under the ruins.

Deir, the capital of lower Nubia, consists of several groups of houses, built of earth intermixed with stones.

Ibrim is built on a rock at the river's edge, but the houses have been deserted ever since the Mamelukes left the place on their retreat to Dongola.

Mr. Belzoni is the first recent traveller who has ascended the river beyond Ibrim. He found the remains of a well-constructed tower on the island of Hogos. The people here are exceedingly poor and dirty, sometimes eating the raw entrails of animals, after dipping them once slightly in water. At Ebsambool are some temples and colossal statues. Some of the latter cut out of the solid rock, are thirty feet high. The inhabitants of the place and neighbourhood lead the most abject lives that can be imagined. The Cachef and his servants make the freest use of the property of the people, taking without ceremony whatever they want. If refused they use force, and if resisted they murder the opponent. In this manner all the time of the rulers is spent; and in this manner they live. Their purchases and sales are entirely conducted by barter, and Mr. Belzoni found it almost impossible to convince them that money could procure dourra or other articles from Syene and other distant places.

At Ooadi-Halfa, above Ebsambool, is the second cataract. The rock forming it is black, probably basaltic. It seems not to be navigable at any season.

The high lands of northern Nubia are inhabited by two almost independent nomade tribes. One of them lives on the west side of the Nile, and is called the Barabras. They are a very lean race of men, apparently destitute both of fat and of flesh, and made up of nerves and tendons, with a few muscular fibres, more elastic than strong. Their

shining skin is of a transparent black and brown.^c They have no resemblance to the negroes of the west of Africa. Their hollow eyes sparkle under an uncommonly projecting eye-brow,^d their nostrils are large, the nose sharp, the mouth wide, yet the lips thin; the hair of the head and beard is thin and in small tufts. Wrinkled at an early age, but always lively, always nimble, they only betray their age by the whiteness of their beards. Their physiognomy is cheerful, and their dispositions lively and good-humoured. In Egypt they are generally employed to watch the magazines and wood-yards. They dress in a piece of white or blue woollen cloth, earn very little, subsist on next to nothing, and are always attached and faithful to their masters.^e

The deserts situated to the east of the Nile, from the valley of Cosseir till we proceed far south in Nubia, are occupied by the Ababdeh. They are enemies to all the tribes which live eastward of the Nile, between the valley of Cosseir and the isthmus of Suez. The Ababdeh differ entirely in their customs, language, and dress, from the Arabs found in Egypt. They are black, but have the same form of head as the Europeans.^f Their heads are uncovered, but their hair is worn long. Their clothing consists of a piece of cloth fastened above the haunches. They anoint their bodies, and particularly their heads, with mutton suet. They have no fire-arms, and few horses. They rear a sort of camel which they call *aguine*, which is smaller, slenderer, and more active than the common kind. Their warlike amusements are animated by a music less pensive and monotonous than that of the Egyptians. The same individual is both poet and musician, and he accompanies his song with a sort of mandoline. They are Mahometans, but not rigid. They bury their dead by covering the bodies with stones.

The middle part of Nubia contains a state or kingdom concerning which we have little recent information. It goes under the name of Dongola, which is also the name of the capital,—a city rich and commercial, and containing 10,000 families, according to the Arabian authors of the middle age.^g Poncet found the city ill-built, the cabins formed of clay,^h and the intervening spaces encumbered with sand-hills.ⁱ The castle which stands in the centre of the city is spacious but poorly fortified, though sufficient to keep the Arabs in check. The fields, watered by the Nile, exhibit in the month of September an agreeable verdure. The people conjoin great ferocity with great cunning. The palace, like those of all the kings of Africa, is a vast cottage. According to Thevenot, the king of Dongola paid a tribute in cloth to the king of Sennaar. The inhabitants export slaves, gold dust, and ostrich feathers, and, according to Leo, musk and sandal wood. They are Barabras, or, as Thevenot calls them, Barberins. Persons of rank here go bareheaded, their hair being disposed in tresses, and their whole clothing consists in a rude vest without sleeves. They are very skilful riders, and have beautiful horses. They profess the religion of Mahomet, and continually repeat its brief and comprehensive creed, but know nothing farther. Their lives are extremely dissolute. The Mamelukes, when they

^a Diod. Sic. I. p. 29. p. 145. Wess.

^b N. Mém. de la Comp. de Jésus, II. 186.

^c "Sourcil fortement surbaissé," i. e. but slightly arched, not elevated.—P.

^d Costaz, Mém. sur les Barabras, dans la Descript. de l'Égypte. Denon, Pl. 107, fig. 4. Thevenot, Voyage, p. 1. l. 2. ch. 69.

^e Mém. sur l'Égypte, III. p. 280.

^f Leo Africanus, VII. cap. 17. Bakooi, &c.

^g "Craie," chalk.

^h Poncet, Lettr. édif. IV. p. 8. (*N. B.* Gondala is a typographical error.)

fled from Egypt, lately took possession of Dongola, but subsequently Mahomed Ali, Pasha of Egypt, carried his victorious arms to this part of Nubia, and added it to his dominions.

Ascending to the confluence of the great Nile with the Nile of Abyssinia, we enter the territories of the kingdom of Sennaar, which occupy the space assigned by the ancients to the famous empire of *Meroë*, the origin of which is lost amidst the darkness of antiquity. Many writers, both ancient and modern, have considered it as the cradle of all the religious and political institutions of Egypt,^a and it must at least be admitted to have been a very civilized and a very powerful state. Bruce thought that he saw the ruins of its capital below the village of Shandy, opposite to the isle of Kurgos. The distances given by Herodotus and Eratosthenes coincide very well with that position; and the island which, according to Pliny, formed the port of Meroë, is found to correspond with equal probability.

The *Nubæ* of Ptolemy lived more to the west. They probably settled in the countries adjoining the Nile, after the fall of Meroë. These people are a gentle sort of Negroes, with small features, woolly hair, flat noses, speaking a soft sonorous language totally distinct from that of their neighbours. They are idolaters, or rather, according to Bruce, they appear to have preserved some traces of the ancient religion of the Sabæans. They worship the moon, and always do homage to that luminary while she shines during the night. At new moon they issue from their dark huts and pronounce some forms of religious words. They seemed to Bruce to show less respect to the sun. The *Nubæ* resemble the Mahometans in being circumcised, but they keep herds of swine, and eat pork freely. They probably were once subdued by the Arabs; for, according to Bakooi,^b the Nubians had a king of the ancient family of the Homerites. It is possible, however, as this same author affirms, that they may have been Christians. The Christian religion was lost for want of priests, which they could no longer procure from Egypt, and with which the Abyssinians refused to supply them.^c

In 1504, a negro nation, till then unknown, leaving the west bank of the White River, or Bahr-el-Abiad, embarked on this river, and came down to invade the lands of the Nubian Arabs. The event of a very bloody battle proved favourable to their cause. These negroes called themselves Shillooks. They demanded that the Arabs should give them every year one half of their flocks. On this condition, they allowed the Arabs to retain their own chief, under the title of *wed-agid*, and lieutenant of their *malek*. On the Blue River, or Abyssinian Nile, the Shillooks founded the city of Sennaar, which, according to Poncet, contained 100,000 inhabitants.^d It is a commercial place, and sends caravans to Egypt, to Nigritia, and to the port of Jidda in Arabia. The brick walls of the *malek's* palace, and some Persian tapestry displayed in the interior, announce the magnificence of a great sovereign for this country. The town is nearly on the same level with the river, being only as high above it as to prevent the danger of being flooded. The soil of the adjoining district, for a breadth of

two miles on each side of the river, is uncommonly rich and fertile, and produces great abundance of food. But the country is unhealthy to men, and no domestic animals can live in it. The latter are reared on the neighbouring sands. The king of Sennaar cannot maintain a single horse, while the sheik of the desert has a regular establishment of cavalry.

To the north of Sennaar we find Gherri, the ancient capital of the Nubians; Halfaya, which is built of hewn stone; Harbagi, in a wooded country, where the yellow and blue flowers of a very thorny acacia exhale their perfumes, and where the scene is animated with paroquets, and a thousand other birds. To the south we find Gisine, in the midst of a forest of *doomy* palms, the leaves of which are used for making sails and cordage, while their fruit contains a juice very pleasant to drink;^e then Deleb; and, after crossing a forest of tamarind trees, we find Serke, a town of 700 houses on the frontier of Abyssinia.

The Shillooks were originally idolaters, but their intercourse with the Egyptians brought them over to Mahometanism. Their government is despotic, yet mild. They attach to the title of slave the same honour which in Europe is connected with that of a nobleman. The kingdom is hereditary, descending to the eldest son, and all the other sons are put to death. A council of the *grandees* of the state has the power of deposing the sovereign, or condemning him to death. During his reign, one of his relations whose office it is to put him to death in case of his condemnation, has the title of the royal executioner. It is a place of great distinction; and the individual who holds it lives on terms of sufficient cordiality with the prince to whom he stands in so singular a relation. Some of them have had repeated occasion to exercise their function. The army consists of 1800 Shillook cavalry, and 12,000 Nubians armed with lances. The name of Fungi, by which the Shillooks are called, is, according to Bruns, only an honourable title of Arabic derivation,^f signifying victors. But it is worthy of remark, that the Portuguese give the name of Funchens to a nation in the neighbourhood of Congo. Sennaar, however, is included among the recent conquests of the Pasha of Egypt; and if the former government, with its laws and arrangements, is permitted to remain, it is only as the vassal of that Turkish power.^g

According to some geographers, we must also comprehend in Nubia three provinces situated to the south of Sennaar. The first is El-Aice, situated on both sides of a great river, a country peopled by fishermen, who in their small barks boldly pass the cataracts.

Kordofan extends along the Bahr-el-Abiad.^h There a trade is carried on in slaves, brought from Dyre and from Tegla, unknown countries of the interior.

Lastly, the country of Fazuelo is bounded on the east by the Bahr-el-Azrek, or the Nile of Abyssinia. The public revenues here are paid in gold or in slaves. These three countries, however, seem to undergo a frequent change of masters, and, according to Browne, Kordofan was about twenty years agoⁱ subject to the sultan at Darfoor.

We might have now given a sketch of the coast of Nubia on the Arabian Gulf, but several reasons, both geogra-

^a Heeren, *Ideen über Politick*, &c. I. 262, &c. 1st edition.

^b Not. et Extr. de MSS. de la Biblioth.

^c Alvarez, *Hist. Æthiop.* c. 37.

^d Poncet, p. 25 and 36.

^e Poncet, p. 47.

VOL. II — NOS. 61 & 62.

^f Afrika, t. II. p. 31.

^g The conquests of Ismael Pasha terminated at Singue in the kingdom of Darfoke, in lat. 10° N. 5 days' journey W. of Abyssinia.—P.

^h "Along the left of the Bahr-el-Abiad."

ⁱ "About twelve years ago," (1813) i. e. about 1800.

phical and historical, have determined us to connect that territory in the same description with the coast of Abyssinia, which will be found in a subsequent part of the present Book.

To the south of Nubia are situated the extensive provinces which belong, or have belonged, to the kingdom of Ethiopia, more generally known by the name of ABYSSINIA. We have not much certain and authentic information respecting this country. The accounts given by the Arabian geographers, Bakooi, Edrisi, and more particularly by Macrizi,^a show us that the Mahometans had little connection with this Christian empire. The modern geography of the country is almost entirely derived from the travels of the Portuguese, Alvarez, Bermudez, Payz, Almeida, and Lobo, whose accounts have been carefully collected and abridged by their countrymen Tellez, and learnedly commented on by the German Ludolf, the Strabo of these countries. To this we must add a few notices furnished by Thevenot and Poncet. An important narrative by Petit-la-Croix, dated in 1700, partly drawn up from information furnished by Abyssinians whom the author had known in Egypt, exists in manuscript in the library at Leyden.^b At last in the eighteenth century appeared the famous work of Mr. Bruce, the best known, though not the purest of all our sources of information. It has since received confirmation in some points, and correction in others, from Mr. Salt.

It is with these insufficient materials that geography has to make out a description of Abyssinia. This description must therefore be vague and incomplete. Our account of the situation and extent of the country does not admit of rigorous precision; for the limits which separate the Abyssinians from Nubia on the north, from the Gallas on the south-west and south, and from the kingdom of Adel on the south-east, constantly depend on the uncertain issue of frequent appeals to arms. If we include in it the coasts of the Red Sea, and the provinces occupied by the Gallas, we may give Abyssinia a length of 560 miles from the 15th to the 7th parallel of north latitude, and a breadth of 640 miles^c from the 32d to the 42d degree of east longitude.^d Taken in this geographical and historical acceptation, Abyssinia would have an extent of 322,000 square miles.^e This country corresponds to the most southern part of the *Æthiopia supra Ægyptum* of the ancients, and, although we are certain that the denomination of Ethiopians is of Greek origin, and has been employed to signify every people of a deep complexion, the Abyssinians still call themselves *Iiopiawan*, and their country *Iiopia*. But they prefer the name of Agazian for the people, and that of Agazi, or Ghez, for the kingdom. The name of Habesh, given to them by the Mahometans, and from which the Europeans have coined such names as *Abassi* and *Abyssini*, is an Arabic term, signifying "a mixed people," and the Abyssinians scornfully disclaim it.^f

Considered as a whole, Abyssinia forms a table land gently inclined to the north-west, and having two great declivities on the east and on the south; the first towards

the Arabian Gulf, and the second towards the interior of Africa. Do these two declivities consist of regular chains? or are they only crowned with isolated mountains, like Lamalmon and Amba-Gideon? These are questions which we are not yet prepared to answer. Travellers only speak in a general way of the extraordinary configuration of these mountains. They are almost every where perpendicular, and are ascended by means of ropes and ladders. The rocks resemble the ramparts and towers of ruined towns. Father Tellez pretends that these mountains are higher than the Alps,^g but we find them nowhere capped with snow, except perhaps, the Samen mountains in the province of Tigre, and that of Namera in Gojam.^h

The number of rivers which take their rise in this country is one evidence of its great elevation. Beginning in the west, the Maleg, the Bahr-el-Azrek, or Abyssinian Nile, (the *Astapus* of the ancients,) the Rahad, which receives the Dender, and the Tacazzé, which receives the Mareb, all contribute to form or to augment the great Nile, while the Hanazo and the Hawash disappear under the sand before reaching the Arabian Gulf. The Zeebe flows perhaps to the coast of Zanguebar. According to Petit-la-Croix, it is lost in the sands of the southern plateau.ⁱ We must also take notice of the great lake Dembea, which, like all those of the torrid zone, changes its size with the revolutions of the seasons.

In general, the rivers, the rains, and the elevation of the surface, render the temperature much cooler than that of Egypt and of Nubia. The heat of the atmosphere, judging by the feelings of the human body, is much less than that indicated by the thermometer.^k Some of the provinces are even more temperate than Portugal or Spain; but in the low valleys, the effects of a suffocating heat are combined with those of the exhalations of stagnant water, to give origin to elephantiasis, ophthalmia, and many other diseases.^l

The winter in Abyssinia, in so far as weather is concerned, begins in June, and continues till the beginning of September. The rain, often attended with thunder and dreadful hurricanes, obliges the inhabitants to intermit all their labours, and puts a stop to all military operations.^m The other months of the year are not entirely exempt from inclement weather. The finest are those of December and January. This is the general character of the climate, particularly in the interior of the country. But the mountainous surface of Abyssinia gives rise to many variations. In the east, on the borders of the Red Sea, between the shore and the mountains, the rainy season begins when it is over in the interior. This singularity greatly surprised Alvarez, a Portuguese, who at Dobba, found himself transported at once from winter to summer.ⁿ

Abyssinia, being full of mountains, cannot be destitute of minerals. According to the manuscript of Petit-la-Croix, it contains many mines of iron, copper, lead, and sulphur,^o but no mention is made of them by travellers. The washing operations at Damot, and the shallow mines of Enarea, produce a gold of extreme fineness.^p Bruce

^a Bruns, Afrika, II. 49—57.

^b Biernstahl, Voyage, V. p. 391. (in German.) Bruns, Afrika, II. 65.

^c 200 by 230 French leagues.

^d From Paris; from about 34° to 44° E. long. from Greenwich.

^e 42,000 sq. Fr. leagues.

^f Ludolf, Hist. I. I. ch. i. Comment. p. 50

^g Ludolf, Hist. I. 6.

^h Lobo, Hist. Æth. I. p. 141. Hist. de ce qui s'est passé, &c. p. 131.

ⁱ Bruns, Afrika, II. 87.

^k Blumenbach's Notes on Bruce, V. 274.

^l Alvarez, Hist. c. 41. c. 67. Bruce, &c.

^m Lobo, Hist. I. 101. Bruce, &c.

ⁿ Hist. c. 47.

^o Bruns, II. 117.

^p Alvarez, c. 39. c. 153. Ludolf, Hist. I. 7. Thevenot, II. 69. p. 760

informs us that the finest gold is found in the western provinces, at the feet of the mountains of Dyre and Tegla. The great plains, covered with rock-salt, at the foot of the eastern mountains, have excited the admiration of travellers. The salt there forms crystals of uncommon length.^a

In a mountainous humid country, warmed by a vertical sun, the vegetable kingdom naturally displays a magnificence which botanists are sorry they have not an opportunity of surveying. On this, as on many other points, Mr. Bruce has deceived our hopes. He gives little information that is really new. The *cusso* tree, for example, which he has named *Banksia Abyssinica*, had been previously described by Godigny.^b Messrs. Blumenbach and Gmelin had been long acquainted with the *girgir*, a gramineous plant, which the English traveller considered as a discovery of his own. The trees of Abyssinia hitherto described, though probably not the principal ones of the country, are the sycamore-fig, the *Erythrina corallodendron*, the tamarind, the date, the coffee tree, a large tree used for building boats which Bruce calls the *rak*, and two species of gum-bearing *mimosas*. The arborescent *Euphorbia*^c is found on some of the arid mountains. A shrub called in the language of the country *wooginoos*, the *Brucea antidysenterica* of Bruce and Gmelin, is justly praised by the English traveller for its medicinal powers.

The chief alimentary plants are millet, barley, wheat, maize, and teff, besides which there are many others. All travellers concur in praising the fine wheaten bread of Abyssinia; but it is only eaten by people of rank.

The *teff* or *tafo* is a grain smaller than mustard seed, well tasted, and not liable to the depredations of worms.^d Blumenbach thinks that it is the same with the *Poa Abyssinica*. The gardens of Abyssinia contain many species of fruit trees, and of leguminous and oily plants which are unknown to us.^e

There are generally two harvests, one during the rainy season, in the months of July, August, and September; the other in spring. At Adowa and in the neighbourhood, there are three crops. Here, as in Egypt, the grain is trodden out by the feet of cattle. Some vines are cultivated, and wine is made, though in very small quantity; for this liquor is not much relished by the inhabitants, who prefer a sort of hydromel mixed with opium. The natives cultivate great quantities of a herbaceous alimentary plant resembling the banana, which serves them for bread, and which Lobo calls *ensete*.^f The *Cyperus papyrus* is found in the marshes of Abyssinia as well as in Egypt. Mr. Bruce asserts, that the tree which produces the balm of Judea, and myrrh, is indigenous in Abyssinia, or more properly speaking, on the coast of Adel, from the Straits of Bab-el-mandeb to Cape Guardafui. He expresses his apprehensions that the odoriferous forests of that country, which were known even to Herodotus,^g were cut down so fast that they were in danger of soon disappearing. The whole of Abyssinia

is scented with the perfumes exhaled from the roses, jesamines, lilies, and pinks, with which the fields are covered.

The animal kingdom displays equal variety and abundance. The cattle are numerous and of large size, with horns of enormous length. There are wild buffaloes, which sometimes attack travellers. The ass and the mule supply in this country the place of the camel. The horses, which are small but extremely lively, as in all mountainous countries, are only used for the purposes of war. The two-horned rhinoceros is seen wandering in numerous flocks. This animal differs essentially from the one-horned rhinoceros of Asia. Lobo and Bruce both think, in opposition to the general opinion of naturalists, that the one-horned rhinoceros is also found in Abyssinia. But Lobo says that he has found, in the accounts given by some of his own countrymen, another animal quite different from the rhinoceros. This, he supposes to be the famous unicorn, which resembles the horse, and is furnished with a mane.^h Very probably these Portuguese had seen the same animal which has lately been seen, and authentically described, by Mr. Campbell, in exploring the south of Africa, and of which we shall give an account in a subsequent Book.

It is unnecessary to name the lions, panthers, and various other animals of the cat kind, of which Africa is the native country. The giraffe extends to Abyssinia. Marco Polo and Bakooi, an Arabian author, long ago spoke of it in such a way as to leave no doubt of its existence. Browne says that it is found in Darfoor.ⁱ So numerous, so ferocious, and so bold are the hyænas in Abyssinia, that they sometimes prowl in the streets of the towns during the night. There are also wild boars, gazelles or antelopes, and monkeys: among the last is a small green kind which commits serious ravages among the corn. Lobo and Petit-la-Croix^k describe the zebra so minutely as to show that this animal is found in Abyssinia. The *Ashkoko*, described by Mr. Bruce, is the *Cavia capensis*,^l according to Blumenbach, and the booted lynx, according to Gmelin.^m There is also a great number of serpents of remarkable species, and enormous in size. The lakes and rivers swarm with hippopotami and crocodiles. The species of birds are no less numerous. One of these is the great golden eagle. Alvarez and Lobo mention many singular birds resembling the birds of paradise, the ostrich, and other species peculiar to the torrid zone; but aquatic birds are rare.

Travellers speak of many species of wild bees, which build their combs under ground, and produce excellent honey.ⁿ The most remarkable insect is a fly, the sting of which is dreaded even by the lion, and which forces whole tribes to change their residence, a circumstance which Agatharchides had anticipated Bruce in remarking.^o The locusts are still more destructive. Their numberless swarms devastate whole provinces, and involve the inhabitants in the miseries of famine.^p

This general description of so extensive a country, must

^a A palm long.

^b Bruns, Afrika, ii. 115.

^c There are several arborescent or shrubby species of Euphorbia, one of the largest and most common of which is the *E. antiquorum*, perhaps the species here intended. It grows eight or ten feet high.—P.

^d Gmelin's Appendix to Bruce's Travels, p. 59 of Rinteln's German translation.

^e Petit-la-Croix, c. 6. Alvarez, c. 19, c. 44, c. 48.

^f Lobo, Voyage Historique, I. p. 143.

^g Philosophical Transactions, LXV. 409.

^h Lobo, Short Relat. p. 23.

ⁱ It is also found in Bornoo.—Denham.—P.

^k Lobo, Voy. Hist. I. 291, 292. Bruns, II. 91.

^l *Hyax capensis*. The animal described by Bruce is the Syrian Ashkoko, formerly considered as a distinct species, *H. Syriacus*, but now regarded as the same with the Cape animal. It has no affinity with the lynx, but was considered by Bruce as the coney of the Old Testament.—P.

^m See Bruce's Travels, Appendix, (Germ. trans. of Leipsick and Rinteln's.) ⁿ Ludolf, Hist. I. 13. Lobo, I. p. 89.

^o Agath. in Geogr. Min. Hudson, I. 43.

^p Alvarez, c. 32, 33. Lobo. Ludolf.

be subject to many local gradations and modifications, depending on the different positions of its component parts. But our topographical information respecting Abyssinia is so limited and obscure, that we cannot even give a complete enumeration of the provinces. Ludolf speaks of nine kingdoms and five provinces. Thevenot, from the information of an Ethiopian ambassador, says there are seven kingdoms and twenty-four provinces. Bruce mentions nineteen provinces, and, lastly, Petit-la-Croix enumerates thirty-five kingdoms and ten provinces, which have belonged to the Abyssinian monarch, of which he retains only six kingdoms and a half, with the ten provinces.^a

Reserving the maritime parts of Abyssinia for another place, we must begin our tour with the kingdom of Tigré, which forms the north-eastern extremity of Abyssinia. This large and very populous province contains the city of Axum, which is 120 miles^b from the Red Sea.^c It is the ancient residence of the Abyssinian monarchs, who still go thither for the ceremony of coronation. The learned are not agreed respecting the antiquity of this city, which was not known to Herodotus or Strabo. The first author who mentions it is Arrian, in his *Periplus of the Erythrean Sea*. In the second century, when he wrote, it was a place of great trade in ivory.^d Its flourishing condition in the fourth, fifth, and sixth centuries, is attested by the descriptions left us by Procopius, Stephanus Byzantinus, Cosmas, and Nonnosus.^e The Portuguese travellers found in it magnificent ruins, the remains of temples and palaces, obelisks without hieroglyphics, one of which was sixty-four feet in height, consisting of a single block of granite, terminated by a crescent; also mutilated figures of lions, bears, and dogs, and inscriptions in Greek and Latin characters.^f According to Mr. Salt, the obelisk, which is still standing, is eighty feet high. There were fifty-four others which had been thrown down by the misguided zeal of a Christian princess. The seat on which the kings used to sit when the crown was put on their head, in front of the great church, has an Ethiopic inscription. Another Greek inscription, on a monument, the original purpose of which is unknown, attests the victories of King Aezanes. The existence of that inscription establishes the authenticity of the one seen by Cosmas at Adulis. But the one which Bruce pretended to have discovered at Axum appears to have been a mere fabrication.^g The modern town of Axum reckons 600 houses, but no remarkable buildings. It contains manufactories of good parchment, and of coarse cotton stuffs. This last branch of industry is also carried on to a great extent at Adowa, a town of 300 houses, which has, since 1769, become the capital of the province. The neighbourhood of Adowa, though containing steep mountains, yields three crops in the year.—In the northern part of this province, on the road from Masuah to Axum, is Dixan, a considerable town, with flat-roofed houses, on the tops of which two earthen pots are stuck up instead of chimneys. The inhabitants are said to be idle and dirty. The women perform the drudgeries of agriculture, to which they go out carrying their children on their backs. The people are very ignorant, and the few who can read

are considered as fully qualified for the priesthood. It is an emporium for the sale of white cloths, tobacco, pepper, looking-glasses, and spirits. Many children are also sold and sent to the Arabians of Mecca.—At Abuhassubba, between Dixan and Axum, there is a large church cut entirely out of the solid rock. One of its rooms is fifty feet by thirty: another has a dome forty feet high. The walls are carved, adorned with crosses, Ethiopic inscriptions, and paintings, representing Christ, the apostles, and St. George. On the eastern frontier of Tigré is the town of Antale, which, during the visit of Mr. Salt, was the seat of government, being the residence of the viceroy, Ras Wellata Sella. It consists of about 1000 hovels of mud and straw, together with the palace. In this province is the monastery of Fremona, which has always been the chief establishment of the Jesuits. It is about a mile in circumference, surrounded by walls, flanked with towers, and pierced for musketry. It appeared to Mr. Bruce to have more the air of a castle than of a convent, and to be the most defensible place that he saw in Abyssinia. The province of Tigré in general is extremely fertile, but the inhabitants are a ferocious, blood-thirsty, corrupt, and perfidious race.^h

The provinces adjoining Tigré on the west are called Wogara, Sireh, and Samen. Wogara is one of the granaries of Abyssinia. The humid plains of Sireh produce numerous palms, and a variety of fruit trees. The banks of the Tacazzé, on its borders, are very beautiful, from the number of fine trees with which they are decorated. In Samen we find several mountain chains, the most celebrated of which are Lamalmon and Amba-Gideon. The last is properly a table-land, which has so steep a descent all round as to be rendered almost inaccessible, but sufficient, both in size and fertility, to support a whole army. It was the fortress of the Falasja or Abyssinian Jews, who were formerly masters of the province of Samen.

To the south-west of Tigré, in the fertile plains surrounding lake Tzana, lies the province or kingdom of Dembea, where we find Gondar, the modern capital of Abyssinia.

This city, according to the report of a native, almost equals Grand Cairo in extent and population.ⁱ But Bruce reduces the number of its inhabitants to 10,000 families.^k The houses are built of red stone, and roofed with thatch. It contains a hundred Christian churches. One quarter of the city is peopled with Moors. The king's palace resembles a Gothic fort. The trade, which is extensive, is carried on in a vast open space, where the goods are daily exposed on mats. The current media of exchange are gold and salt; sometimes, also, the woollen cloths manufactured at Adorya. The province of Dembea contains also the town of Emfras, consisting of 300 houses, and agreeably situated. This province is remarkably fertile in grain.

To the south of Dembea the Nile winds round the kingdom of Gojam, forming thus a sort of peninsula. This part of the river has a most magnificent waterfall, the whole river falling down from a height of forty feet with tre-

^a Petit-la-Croix, ch. 21.

^b 43 Fr. leagues.

^c D'Anville, *Mém. sur l'Égypte*, p. 265.

^d Hudson, *Geogr. Minor. t. I. p. 3.*

^e Quoted by Ludolf, *Hist. Æthiop. II. ch. 11. Comment. p. 60 and 251.*

^f Lobo, *Voyage*, 255. Alvarez, cap. 38. *Hist. de ce qui s'est passé, &c. p. 137.*

^g This inscription, as restored by Bruce, is as follows: *Προλεμαίου Ευεργετου Βασιλεως.* It has not been found by more recent travellers.—P.

^h Petit-la-Croix, ch. 10.

ⁱ Abraham, an Abyssinian, quoted by Sir W. Jones, in the *Asiatic Researches.*

^k Bruce's Travels.



GONDAR, the Capital of ABYSSINIA,

with part of the Lake Tana.

mendous force and noise, into a basin, where it wheels round in numerous eddies. Abounding in all sorts of productions, this province derives its chief riches from its herds of cattle.

To the east of Gojam are found the provinces of Amhara and Begamder; the name of the latter of which signifies "the Sheep Country." It also contains horses, and its inhabitants are very warlike. The mountainous country called Lasta, inhabited by a tribe which is generally independent, contains some iron mines. Amhara, to the south of Begamder, has always passed for one of the principal provinces of Abyssinia, and contains a numerous and brave nobility.^a Here is the famous state-prison of Geshen, or Amba-Geshen, which is now succeeded by Wechneh in the province of Begamder. It seems to consist of steep mountains, which contain either a natural cavern or an artificial excavation, into which the prisoners descend by means of a rope. Here the Abyssinian monarch causes to be kept under his own eye all those princes of his family from whom he thinks he has any thing to apprehend. It is often to this tomb of living beings that the grantees of the kingdom come to select the prince whom, from a regard for his birth, or from pure affection,^b they call to the throne. These barbarous usages, however, vary according to the character of the monarch, and according to the anarchical or comparatively peaceful state of the country.^c

When we have added to these provinces that of Xoa, or Shoa, formed by a large valley very difficult of access,^d and that of Damot, rich in gold, in crystal, and in cattle with monstrous horns;^e we have gone over the Abyssinian empire properly so called. Lobo, who resided for a time in Damot, extols it as the most delightful country he had ever beheld. The air is temperate and healthy, the mountains beautifully shaded with trees, without having the appearance of wild and irregular forests. Vegetation here is perpetually active: the operations of sowing and reaping are common to all seasons of the year, and the whole scene has the aspect of a pleasure-garden. As for Shoa, its ruling prince is stated by Bruce to be rather an ally to the king of Gondar than a vassal.

The more remote provinces are mostly under the yoke of the ferocious Gallas, and other savage tribes hostile to the Abyssinians. To the east are the countries of Angot and Bali: to the south we are told of those of Fatgar, of Yvat, of Cambat, and more especially the kingdom of Enarea, which, from Bruce's account, seems to be a table land watered by several rivers which have no outlet, and deriving a temperate climate from its elevation. The inhabitants, who in the mountains have pretty clear complexions, trade with the people of Melinda on the Indian ocean, and with those of Angola on the Ethiopic. The hilly district of Caffa must be conterminous with Enarea on the south. All the heights are there covered with coffee trees. But this report, from a traveller in other respects not very scrupulous, requires further confirmation.^f

In the topographical sketch of Abyssinia now given, we

^a Thevenot, p. 764.

^b "Sa naissance, ou leur volonté;" hardly their affection, for the choice was usually decided by the incapacity and pliability of the individual selected.—P.

^c Bruns, Afrika, II.

^d Salt's Travels.

^e Lacroze, quoted by Bruns, Afrika, II. p. 217.

^f Bruns, Afrika, II. 217, 218.

observe the mixed nature of the population of this country. We shall first take a glance of the Abyssinians, or, as they call themselves, the Agazians. In their handsome forms, their long hair, and their features, they approach to the European; but they are distinguished from all known races, by a complexion altogether peculiar, which Mr. Bruce compares sometimes to pale ink, sometimes to an olive brown, and which, according to the French Institute of Egypt, seems to partake of a bronze colour. The portraits of the Abyssinians, given by Ludolf and Bruce, betray, however, some traits of similarity to the negroes. When we attend to their language, we find that the Gheez, which is spoken in the kingdom of Tigré, and in which the books of the Abyssinians are written, is regarded by all the learned as a dialect derived from the Arabic.^g The Amharic language, used at the Abyssinian court since the 14th century, and spoken in most of the provinces, has also many Arabic roots, but carries in its syntax evidences of a peculiar origin. The Gheez language, harder than the Arabic, contains five consonants which, to the organs of a European, are unutterable. The Amharic is much softer, but has not that variety of grammatical forms which characterizes the Asiatic languages.^h It would appear, therefore, that Abyssinia, first peopled by an indigenous and primitive race, has received, more especially in its northern and maritime parts, a colony of Arabs, and probably of the tribe of Cush, whose name is, in the prophetic books of Scripture, applied both to a part of Arabia and to Ethiopia.ⁱ This Arabian origin of a part of the Abyssinians explains the reason why several of the Byzantine authors have placed the country of the *Abaseni* in Arabia Felix.

The intimate relations which Abyssinia has maintained with the nations of Asia confirm the opinion of their descent from the Kushite Arabs. The indigenous history of the Abyssinians, so far at least as it is known to us, goes no farther back than the famous Queen of Sheba, who travelled to Judea to admire the magnificence of Solomon. The son whom she bore to the king of the Jews had the two names of David and Menihelc. His descendants continued to reign till the year 960 of the Christian era. Under the two brothers, Abraha and Azbaha, in the year 330, the Christian religion was introduced into Abyssinia. In 522, king Caleb, called also Elesbaan, in alliance with the emperor Justin, fought several campaigns in Arabia against the Jews and the Koreishites. The Zogaic dynasty reigned for 340 years. The most celebrated king of that family, Lalibala, caused several edifices to be cut in the rocks, and among others, ten churches, of which a traveller of the 16th century has given representations in plates. In 1268, the grantees of Shoa reinstated a branch of the old Solomonic dynasty on a throne, of which, twenty years ago,^k it continued in possession. Among the princes of this dynasty, Amda Sion, at the beginning of the 14th century, was a warlike and powerful monarch. Zara Jacob sent to the council of Florence ambassadors, who declared for the eastern church. Under the unfortunate David III. began the connections of Abyssinia with Portugal. His

^g Adelung, Mithridates, I. 404.

^h Ludolf, Gramm. Amharica.

ⁱ Michaelis, Spicileg. Geogr. Hebr. Exteræ, t. I. p. 143—157 Eichhorn, Programma de Kuschæis. Arnstadt, 1774. Compare Isaiah cap. 18 and 20. Ezekiel, cap. 29. v. 10. cap. 30. v. 3. v. 9. Nehemiah cap. 3. v. 8. Joseph. Antiq. Judaicæ. I. 6. § 2. &c. &c.

^k Reckoned from 1813.

son Claudius, or Azenaf Segued, a prince of the highest endowments, had to contend at the same time with the ferocious Mahometans who devastated his empire, and the intrigues of the missionaries who laboured to subject him to the authority of the Pope. He kept up the alliance with the Portuguese, who, in 1542, sent him an auxiliary body of 450 men, under the command of Christopher de Gama. That hero died gloriously fighting against a numerous army of Moors, and the king himself lost his life in a subsequent battle. Under the reigns of his successors the intrigues of the Roman Catholics continued without success; and, when at last, in the year 1620, the learned and able father Payz succeeded in making the king Socinios, or Susneus, declare publicly for the church of Rome, the only result was a train of the bloodiest civil wars. In 1632, king Basilides, or Facilidas, put an end to them, by expelling the catholics, and securing the exclusive sway to the Abyssinian church. From that period Abyssinia ceased to be known in Europe. But in 1691, king Yasoos I. sent an embassy to Batavia. This monarch, distinguished for his virtues, repaired to the foot of the famous mount Wechneh, caused all the princes who were immured in that place of confinement to be brought before him, consoled them, passed some weeks in their society, and left them so delighted with his kindness, that they returned voluntarily to their dreary abode. The vices of the children of Yasoos I. favoured for a moment the enterprises of a usurper who filled the throne, and declared in favour of the catholic religion. Yasoos II. spent his leisure hours in studying the arts, particularly architecture. He married a princess from one of the Galla tribes, and his successor, by this marriage, gave occasion to civil wars, by conferring some of the government appointments on the Gallas. At the time of Mr. Bruce's visit, the reigning king, called Tecla Haimanut, succeeded in quieting these troubles; but, dethroned by a rebel prince, he left his country a prey to anarchy. The *ras*, or governor of Tigré, the powerful Wellata Selasse, whom Mr. Salt visited, supports a nominal king who lives at Axum, while Guxo, a Galla chief, has set up another nominal sovereign on the throne of Gondar.^a

Separated from Europe by distrust as well as by natural obstacles, and insulated in the midst of Mahometan and pagan nations, the Abyssinians, though possessing vigour and talent, languish in a condition not unlike that of Europe in the 12th century. Their Christianity, mixed with Jewish practices, admits circumcision in both sexes as a harmless practice. They keep both the Jewish sabbath and the first day of the week. During the great discussions which were held on abstract doctrines respecting the nature of Jesus Christ, the church of Abyssinia was by its geographical position drawn over to the sect of the Monophysites, of which it forms a leading branch along with the Copts of Egypt.^b Yet, in their numerous festivals, in the worship of saints and angels, and in the adoration almost divine which they pay to the Virgin Mary, they come near to the catholicism of the Spaniards and Italians.^c They make use of incense and of holy water.

The sacraments which they acknowledge are baptism, confession, and the eucharist. They take the last in both kinds, and believe in transubstantiation. Their Bible contains the same books as that of the catholics, besides an additional one called the book of Enoch, of which Mr. Bruce brought home three copies.^d In the metropolitan church of Axum, a holy ark is preserved, which is regarded as the palladium of the empire. The Abuna, who is the head of the clergy, and may be compared to the *exarchs*, is nominated by the Coptic patriarch of Alexandria, and is always a foreigner. The monks of the two orders of Saint Eustathius and Saint Tecla Haimanut, make themselves useful in cultivating the ground.^e The marriage of priests is allowed as in the Greek church.

If this religion be, as the Abyssinians pretend, one of the most ancient forms of Christianity, it certainly has little influence on the civilization of the people. Every thing almost is conducted in the same manner as in Turkey. The Abyssinian monarch, an absolute despot, sells the provincial governments to other subordinate despots.^f Some of these governors have contrived to render their dignity hereditary.^g The Vizier or prime minister has the title of *Ras*. The nobility consists of descendants of the royal family, the number of which is augmented by the practice of polygamy, which, though condemned by the church, is kept up by the force of custom, and the influence of the climate. Those princes who have pretensions to the succession are usually kept in the royal prison. According to some authors, there is scarcely such a thing as the right of property; yet other accounts mention a sort of magistrate who taxes the produce, and fixes the sum to be paid by the farmer to the proprietor, a procedure which seems to suppose considerable respect for the rights and interests of the people.^h Justice is administered with great promptitude; punishments of the most barbarous kind seem to be frequent. There are tribunals of twelve persons with a presiding judge, which, like the old Gothic tribunals, hold their court in the open air. The king's revenues consist of supplies of grain, fruit, and honey, with some slender payments in gold. Every three years a tenth part of the cattle is appropriated by the government.ⁱ The army, which is paid by grants of land, amounts to 40,000 men, a tenth part of whom are cavalry. Some carry short firelocks, which they never fire without resting them on a support. The greater part are armed with lances and swords. The bravery of the Abyssinians, not being directed by tactics, has usually no other effect than that of exposing them to extensive carnage. When victorious they give full scope to their ferocity, mutilating the dead bodies of their enemies in a shocking manner, and exhibiting publicly the most indecent trophies of their success.^k

This single feature must excite in our readers a disgust sufficient to suppress all avidity for a detailed description of the manners of the Abyssinians; we shall therefore only subjoin such brief sketches as are necessary. They live in round hovels with conical roofs, a form rendered necessary by the violent rains. A light cotton dress, some pieces

^a Salt's Travels.

^b Tecla, Abyss. quoted by Thomas à Jésus, de Convers. gent. VII. c. 13.

^c Ludolf, Hist. III. cap. 5. Lobo, II. 90, 91.

^d Silvestre de Sacy, Magasin Encyclopéd. 1800.

^e Petit-la-Croix, ch. 17—20, &c.

^f Lobo, I. 323.

^g Petit-la-Croix, ch. 21.

^h Bruns, Afrika, II. 126.

ⁱ Petit-la-Croix, ch. 22.

^k Bruce's Travels.

^l This statement is confirmed by Nathaniel Pearce, an English sailor, left in Abyssinia by Lord Valentia, who resided about 15 years in the country.—P.

of Persian carpet, and a few articles of handsome black pottery, form the chief objects of luxury. The children go naked till the age of fifteen.^a The arts and mechanical professions are in a great measure in the hands of strangers, and especially of the Jews.^b To these last belong all the smiths, masons, and thatchers in the country.

The proud indolence of the Abyssinians is shown in their manner of eating. The great lords have servants at table to feed them. It seems certain, after much discussion maintained on the point, that the Abyssinians have no repugnance to raw flesh, accompanied with a gravy of fresh blood, and rather consider it as a delicacy.^c Bruce has perhaps exaggerated in saying that they cut slices from the live ox for immediate use, the blood of the animal staining the entrance, and his bellowings mingling with the festive noise of the company.^d The savage gaiety of these feasts is animated by hydromel in which opium is dissolved. The two sexes indulge publicly in freedoms which to other nations seem licentious, though perhaps not in the gross debaucheries of which they have been accused.^e

Such being the character of the Christians of Abyssinia, we cannot be surprised at any thing in the manners of the more savage nations that live in this country. The ferocity and the dirtiness of the Gallas surpass every idea that can be formed. They live entirely on raw meat; they smear their faces with the blood of the slaughtered animal, and hang the entrails round their necks, or interweave them with their hair. The incursions of these nomade and pastoral tribes are sudden and disastrous. Every living thing is put to the sword; they butcher the infant in the mother's womb; and the youths, after being mutilated, are sold by them into slavery. These people are distinguished from the negroes by their low stature, their deep brown complexions, and their long hair. These African Tartars, who first made their appearance in the countries situated to the south-east of Abyssinia, now occupy five or six great provinces of that empire, as stated in the topography. They are divided into many tribes, which, according to some, are arranged into three national communities. Those of the south are little known; those of the west are called Bertuma-Galla: they have kings, or war-chiefs, called Looob; those of the east are called Boren-Galla, and their chiefs, Mooty. Their chiefs, who, according to Lobo, only enjoy a temporary authority, give audience in wretched hovels. Their guards and courtiers begin by beating with bludgeons any stranger who presents himself; then introduce him into the king's presence, and compliment him as an intrepid fellow who would not suffer himself to be dismissed.^f The Gallas worship trees, stones, the moon, and some of the stars. They believe in magic, and in a future state. The rights of property, marriage, and the support of aged relations, are made binding by their laws. Warriors are allowed to expose their children. In their distant expeditions across desert countries, they live on pounded coffee.

The Abyssinians consider the Gallas as originally belonging to the east coast of Africa. Their name seems to figure among the nations which were vanquished or subjugated

by Ptolemy Philadelphus, according to the inscription of Adulis. When, along with these circumstances, we take into view the physical features which distinguish them from the negroes, we must at once reject the hypothesis of some geographers, who would represent them as a colony of the Galla negroes of the Pepper Coast. They belong more probably to the nomade tribes of southern central Africa.

The other pagan and savage races are not quite so formidable. In the north-west parts, and to the east of the river Tacazze, the Shanga'la^g inhabit the wooded heights which are called Kolla by the Abyssinians. The visages of these negroes bear a resemblance to those of apes. They spend one part of the year under the shade of trees, and the rest in caverns, which have been dug in the soft sandstone rocks. Some of these tribes live on elephants and rhinoceroses, others on lions and boars; one of them feeds on locusts. They go quite naked, and are armed with poisoned arrows. The Abyssinians hunt them like wild beasts. These tribes, the description of which forms one of the most valuable parts of Mr. Bruce's account,^h were long ago designated by ancient authors under the name of locust-eaters, ostrich-eaters, and elephant-eaters.ⁱ The nature of the soil, alternately covered with water, and baked and cracked into chinks by the violent heat, excludes every sort of culture.

There are two nations called Agows. The one lives in the province of Lasta, round the sources of the Tacazze, the other possesses the neighbourhood of the sources of the Nile of Abyssinia. Possessing fertile but inaccessible countries, courageous, and provided with good cavalry, they maintain their independence both against the Gallas and Abyssinians. The Agows of the Nile furnish Gondar with beef, butter, and honey. Although they retain some traces of the progress which the Christian religion formerly made among them, their principal worship is addressed to the spirit whom they consider as presiding over the sources of the Nile. Every year they sacrifice a cow to that spirit, and some neighbouring tribes, among whom are the Gafats, join in the sacrifice.

The Gafats are a numerous people, who speak a distinct language, and live in Damot. Their country produces very fine cotton.

The Gurags, a set of expert and intrepid robbers, live in the hollows of rocks to the south-east of Abyssinia. Bermudas places them in the kingdom of Oggy, contained in the list of provinces given by Petit-la-Croix.^k "This country," says that author, "produces musk, amber, sandal-wood, and ebony, and is visited by white merchants."

Of all the inhabitants of Abyssinia, the Jews, called Falasja, or "the exiled," present the most extraordinary historical curiosity. That nation seems to have formed for centuries a state more or less independent in the province of Samen, under a dynasty, the kings of which always bore the name of Gideon, and the queens that of Judith.^l That family being now extinct, the Falasja submit to the king of Abyssinia.^m They exercise the vocations of

^a Petit-la-Croix, ch. 11.

^b Ludolf, l. IV. c. 5. Petit-la-Croix, ch. 9, &c.

^c Bruns, Afrika, II. 137.

^d This statement is also confirmed by Pearce. The same fact was stated to Dr. Clarke, by an Abyssinian priest examined by him at Cairo, and to Sir W. Jones, by Abram, an Abyssinian. Lobo also states, that the Gallas and Abyssinians are fond of meat quite warm, and that it is their practice to serve up a quarter as soon as killed.—P.

^e Bruce's Travels, III. p. 216—225. Ludolf, Histor. Æthiop. I. 15. 16. Valentia's Voyages and Travels, III. p. 26.

^f Lobo, l. c. I. p. 26.

^g Shankala.

^h Blumenbach in the [Germ.] translation of Bruce, V. 260.

ⁱ Agatharch. in Geogr. Min. Hudson, I. 37. Diod. Sic. III. &c.

^k Bruns, Afrika, II. 230.

^l Bruce's Travels.

^m Salt's Travels.

weavers, smiths, and carpenters. At Gondar they are considered as sorcerers, who during the night assume the form of hyænas. According to Ludolf, they had synagogues and Hebrew Bibles, and spoke a corrupt dialect of Hebrew.^a Bruce asserts that they have the sacred books only in the Gheez language; that they have lost all knowledge of the Hebrew, speak a jargon peculiar to themselves, and know nothing of the Talmud, the Targum, or the Cabbala. The greater part of the Falasjas live on the Bahr-el-Abiad among the Shillooks. This is the very country that was occupied by the Egyptian exiles, the Asmach and Sebridæ. Perhaps a company of Egyptian Jews followed the steps of these emigrants, and it is not unlikely that they have been mixed together.

Travellers, both ancient and modern, agree in comprehending all the African coasts, from Egypt to the strait of Bab-el-Mandeb, under the general name of Troglodytica, the coast of Abex, or Habesh, or New Arabia. There is nothing to prevent us from adopting this division, interesting^a both in relation to history and to physical geography. We have found that neither Nubia nor Abyssinia have any fixed limits: and an Arabian geographer of great weight, Abulfeda, makes a formal distinction between Nubia and the maritime parts.^b

The ancients, whom we must often take for our guides, represent the chain of mountains which skirts the Arabian Gulf as very rich in metals and precious stones. Agatharchides^c and Diodorus^d make mention of mines of gold which were worked. These were contained in a white rock, probably granitic. Pliny makes these riches common to all the mountainous region between the Nile and the Gulf.^e The Arabian geographers have confirmed these accounts, as well as those which relate to a quarry of emeralds. But the excessive heat and the scarcity of water render the low part of the coast almost uninhabitable. Cisterns must be every where used, as there are no springs.^f In the dry season the elephants dig holes with their trunks and their teeth to find water. The Etesian, or north-east winds, bring the periodical rains.^g The small lakes or pools which abound on the coast are then filled with rain water. Palms, laurels, olive trees, styraxes, and other aromatic trees, cover the islands and low coasts. In the woods are found the elephant, the giraffe, the ant-eater, and many species of monkeys. The sea, which is not very deep, is green like a meadow, from the great quantity of algæ and other marine plants which it nourishes. It likewise contains much coral.

The nature of the soil and climate has, in all ages, kept the inhabitants in a uniform state of savage wretchedness. Divided into tribes, and subject to hereditary chiefs, they lived formerly, and still live, on the produce of their flocks of goats, and by fishing. The hollows of the rocks were and still are their ordinary dwellings. From these caverns, called in Greek *trogla* (τρογλη), is derived the general name under which they were designated by the ancients. That kind of lodging was anciently used in many other countries of the globe. We find Troglodytes at the foot of

Caucasus and of Mount Atlas, in Mœsia, in Italy, and in Sicily. This last mentioned island contains an example of a whole city, formed by excavation in the interior of a mountain.^h But of all the races that have dwelt in caverns, those of the Arabian Gulf have longest preserved the habits and the name of Troglodytes.

According to the ancients, these people are of Arabian origin. Bruce comprehends them under the general name of Agazi or Gheez, which means shepherds. They speak the Gheez language, which is a dialect of the Arabic. The uncouth and singular sounds of this language made the ancients say that the Troglodytes hissed and howled instead of speaking. They were said to practise circumcision on both sexes. They employed a barbarous custom, which is used at this day among the Kora-Hottentots, that of a partial castration.ⁱ In ancient times they observed none of the laws of marriage; the wives of the chiefs of tribes were the only women who could be said to have husbands.^k They painted their whole bodies with whiting,^l and hung round their necks shells, which they believed to have the power of protecting them from sorcery. Some of these tribes killed none of their domestic animals, but lived on their milk, as the Hazorta still do; others ate serpents and locusts, a food still relished by various tribes of the Shangallas; finally, there were among them some who devoured the flesh and bones of animals mashed together, and cooked in the skin. They manufactured a vinous liquor from certain wild fruits. The most wretched among them repaired in flocks, like cattle, to the lakes or pools, to allay their thirst. This picture of the ancient Troglodytes is in a great measure applicable to the present inhabitants of these coasts.

Mr. Belzoni, who, in his excursion to the Red Sea, came near the countries now under consideration, met with a fisherman, who was probably a fair specimen of that department of the population.^m He lived in a tent only five feet wide, with his wife, daughter, and son-in-law. He had no boat, but went to sea on the trunk of a doomt tree,ⁿ ten or twelve feet long, with a horizontal piece of wood at each end, to prevent it from turning round; a small hole for a mast; and a shawl for a sail, managed by means of a cord. On this apparatus two fishermen mount as on horseback, carrying a long spear, which they dart at the fish when they see them. The weather requires to be very favourable when they go to sea, this being impracticable during the east, and dangerous in west winds.

We shall begin the topography of the coast with the promontory Ras-el-enf, or the *Mons Smaragdus* of the ancients. Mr. Bruce places opposite to this Cape an "Isle of Emeralds," where he found fine green crystals of fluor spar. But the famous emerald mine, which was worked by the Egyptians, was on the continent. The Arabian geographers place it in a more southerly latitude than Assouan or Syene. They say that the mountain is shaped like a bridge, and that the emeralds are found sometimes in sand, sometimes in a blackish gangue.^o Some moderns have given vague confirmations of the existence of this

^a Ludolf, Hist. Æthiop. l. I. cap. 14.

^b Abulfeda, Afrika, edit. Eichhorn, tab. XXVII.

^c Agatharch. de Mar. Rub. Geogr. Min. Hudson.

^d Diod. Sic.

^e Plin. VI. 30.

^f Idem.

^g Strabo.

^h Travels in Sicily by Prince Biscari, in Italian.

ⁱ "Ils se privaient d'un testicule, coutume barbare qui se retrouve aujourd'hui chez les Kora-Hottentots."

^k "Anciennement les femmes étaient en commun, à l'exception de celles des chefs de tribus."

^l "Céruse."

^m Narrative, vol. II. p. 68.

ⁿ The *Cucifera Thebaica* of Delille, a palm.

^o Edrisi, Bakooi, Ibn-al-Ooardi, in Edrisi's Africa, ed. Hartmann, p. 79.

mine.^a We believe it to be the same which was visited by Belzoni. Pliny extols its precious stones for their hardness,^b and they are in great request in the east, under the name of "emeralds of the Saïd."^c

Zemorget Island, which is farther from the continent than the Isle of Emeralds, passes for the Topaz Island of the ancients.^d It is a barren rock, and was inhabited only by serpents, when chance led to the discovery of a quarry of precious stones, which the ancients called topazes, and the working of them was undertaken by the kings of Egypt.

The coast makes a great concave sweep, called, by ancient and modern navigators, Foul Bay. At the bottom of this gulf is the port of the Abyssinians.^e The Arabian geographers give the coast next south of this port, the name of Baza, Beja, or Bodsha. According to them it is a kingdom separated from Nubia by a chain of mountains, rich in gold, silver, and emeralds.^f We have very discordant accounts, both of the orthography of the name and the boundaries of the country. The name of Baza is found in that of the promontory called *Bazium* by the ancients, and now Ras-el-Comol. The inhabitants of this country, who are called Bugiha by Leo Africanus, *Bogaites*^g in the inscription at Axum, and Bedjah by the generality of the Arabians, lead a nomade and savage life. They derive abundant aliment from the milk and flesh of their camels, cattle, and sheep; every father exercises a patriarchal rule in his family, and they have no other government. Full of loyalty to one another, and hospitable to strangers, they continually rob the neighbouring agriculturists, and the trading caravans. Their cattle have horns of enormous size, and their sheep are spotted. The men are all subjected to the barbarous and indecent mutilation already mentioned of the Troglodytes and the Kora-Hottentots.^h There are some tribes among them in which the front teeth are extracted; and there is a society of women who manufacture arms, and lead the lives of Amazons.ⁱ The custom of hanging up a garment on the end of a pike as a signal of peace, and for commanding silence, is common to them with the Hazorta, a tribe on the coast of Abyssinia.^k Bruce asserts that they speak a dialect of the Gheez, or Abyssinian language. But the Arabian historian of Nubia makes them belong to the race of Berbers, or Barabras. A learned orientalist, M. Quatremère, has endeavoured to demonstrate the identity of the Bugihis or Bejahs, with the *Blemmyes* of the ancients, or the *Balнемois* of the Coptic writers. The descriptions of the ancients appear to us to apply more naturally to the Ababdeh. The other hypothesis is formally contradicted by a passage of Strabo. "The Megabari," says that geographer, "and the Blemmyes, live below Meroë, on the banks of the Nile nearest the Red Sea. They are neighbours to the Egyptians, and subject to the Ethiopians, but on the sea shore live the Troglodytes."^l From this passage we must

consider the Megabaris as chiefly represented by the Makorra of the historian Abdallah, the Blemmyes by the Ababdeh, and the Troglodytes by the Bejahs.

The port of Aidab, called Gidid by the Portuguese, long served as a point of communication between Africa and Arabia. It was a great place of embarkation for Mahometan pilgrims bound to Mecca. The Samoom wind renders this place scarcely habitable.

Suakem, called Szawaken,^m by M. Seetzen, in the latitude of Dongola in Nubia, is now the most frequented port. The town is surrounded with some redoubts, and is mostly built on an island. It possesses mosques and even schools, and has a garrison appointed by the Sherif of Mecca. The adjoining coast has no river, and is badly supplied with fresh water; it contains calcareous rock, potters clay, and red ochre, but no metals. Here some dourra, tobacco, water-melons, and sugar-cane, are cultivated. Among its trees we find the sycamore, which, as well as the *Persea*,ⁿ the ancients mention as growing in Troglodytica. The forests consist of ebony trees, gum-trees or acacias, and many varieties of palms. There is a large tree which produces a fruit resembling grapes. Here are found the giraffe and numerous herds of elephants. The sea yields pearls and black coral. Besides all these productions, the town exports slaves and gold rings brought from Soodan.^o The inhabitants of Suakem, and those of Hallinga-Taka, the adjoining tribe of the Bishareens, and that of Hadindoa, speak a peculiar language.^p

The promontory of Ras-Ageeg, or Ahehas, seems to be the termination of the Bejah, or Bodja, or Baza country. After this promontory comes a desert coast lined with islets and rocks. It was here that the Ptolemies procured the elephants which they required for their armies. Here Lord Valentia found a large harbour, to which he gave the name of Port Mornington. The first considerable island met with is called Dahalac, the largest indeed belonging to the Arabian Gulf, being more than sixty miles^q in circumference. It is level on the side towards the continent, but rises eastward, and has a rocky precipitous coast towards the sea.^r It contains goats with long silky hair, and furnishes a sort of gum-lac, the produce of a particular shrub.^s The pearls formerly got here had a yellowish water, and were of little value.^t To this island vessels repair for fresh water,^u which, however, according to Mr. Bruce's account, is very bad, being kept in 370 dirty cisterns.

In the gulf formed between this island and the coast is found Masuah, or Matzua, an arid rock, with a bad fortress and a very good harbour. It is here that travellers land who go to Abyssinia by sea. At the bottom of the gulf the town of Arkeeko commands an anchorage, which is exposed to the north-east winds. It contains 400 houses, some of which are built of clay, and others of plaited grass.^x

^a Maillet, *Descript. de l'Egypte*, p. 307. Niebuhr, *Voyage*, I. 210. Lucas, &c. &c.

^b Plin. XXXVII. 16.

^c Otter, *Voyage*, &c. I. 208. Wansleben, in Paulus, *Collect. des Voyages*, &c. I. 33.

^d D'Anville, *Descr. du Golfe Arab.* p. 233. Gosselin, *Recherches sur la Géographie des Anciens*, II. 196.

^e "Port des Abyssins."

^f Abulfeda, *loc. cit.* Edrisi, *Africa*, p. 78—80.

^g Bougeite.—*Valentia*.

^h "Tous les hommes sont monorchides."

ⁱ Abdallah, *Histoire de la Nubie, d'après Makrizi*, trad. par M. E. Quatremère. *Mém. Hist. Géogr. sur l'Egypte*, II. p. 135.

VOL. II.—NOS 63 & 64.

^k Compare Quatremère, *ibid.* p. 139, and Salt's *Travels*.

^l *Geographia*, lib. XVII. in principio.

^m Sz in the Polish language, is pronounced like our *sh*.

ⁿ Strabo, *loc. cit.*

^o Seetzen, information received from a native. Zach's correspondence, July, 1809.

^p Mithridate, t. III. p. 120, from a manuscript note of M. Seetzen.

^q More than 20 marine leagues, i. e. 69.2 Eng. miles.

^r Alvarez, c. 19. c. 20. D'Anville, *Descript. du Golfe Arab.* p. 266.

^s Vincent Leblanc, p. I. ch. 9. Coronelli, *Isol.* p. 110.

^t Lobo, I. 51.

^u Poncet, *German transl.* 171.

^x Bruce's *Travels*, lib. V. ch. 12.

This low, sandy, and burning coast, called Samhar, is the scene of the wanderings of different nomade tribes, as the Shihos, who are very black in complexion, and the Hazortas, who are small and copper-coloured. These people, like the ancient Troglodytes, inhabit holes in the rocks, or hovels made of rushes and sea-weed. Leading a pastoral life, they change their dwelling according as the rains give rise to a little verdure on the burnt soil; for, when the rainy season ends in the plains, it begins among the mountains.

The Turks, who have been masters of this coast since the sixteenth century, gave the government of it to an Arab Sheik of the Bellowe tribe, who has the title of Naib. But, according to recent accounts, it appears that the governor of Abyssinia and of Tigré, has resumed his ancient influence over this part of the Abyssinian empire.^a The last traveller, Mr. Salt, found the Naib independent of the Turks, and acknowledging the power of the Ras of Tigré.

The government of the coast, called in ancient accounts

the territory of the Bahar-Nagash, that is, "the king of the Sea," formerly extended from Saukem to the south of the Straits of Bab-el-Mandeb. Dobarva, or Barva, its ancient capital, was, in Bruce's time, in the hands of the Naib of Massua. This town, situated on the Mareb, is considered as the key of Abyssinia towards the sea. During the existence of the Portuguese influence it was a place of great trade,^b but it was not visited by Mr. Salt.

To the south of Samhar, the coast takes the name of Dankali, or, as Niebuhr calls it, Denakil,^c a sandy country from which salt is obtained, and the chief port of which is Bayloor. The inhabitants are called Taltals, and, though Mahometans, are in alliance with Abyssinia.

The country round the strait of Bab-el-Mandeb is, in the best modern maps, called Adeil; but we know not whether it belongs to Abyssinia, or, as the name seems to indicate, to the kingdom of Adel. Bruce mentions some magnificent ruins at Assab, the chief port of this province, but gives a very obscure account of them.

^a Bruns, Afrika, II. 195. Lett. di S. Ignacio di Loyola, &c. Rome, 1790, p. 21.

^b Alvarez, c. 18. 20. 23. 128.

^c Niebuhr, Descript. de l'Arabie, tab. XX.

BOOK LXIV.

THE REGION OF MOUNT ATLAS OR BARBARY, AND THE GREAT DESERT OR ZAHARA

PART I.

General features of these Countries.

FROM the Egyptian Delta and the pyramids, we have ascended the Nile as far as we enjoyed the assistance of history and of the journals of European travellers. Before attempting to penetrate the mysterious centre of northern Africa, we shall complete our view of its more accessible parts, turning our attention in the first place to mount Atlas, and the pillars of Hercules.

A straight line passing from the cataracts of the Nile to Cape Blanco, or the mouth of the Senegal, will form the southern boundary of the region now to be described. Here physical geography presents us with two leading and characteristic phenomena, the greatest desert in the known world, and one of the most extensive mountain chains. These two features belong to two distinct regions. We shall first trace that of Mount Atlas, to which the common practice of Arabian and European geographers has given the name of Barbary, or more properly Berbery, from the Arabic name of the most ancient indigenous race of its inhabitants.

Mount Atlas has a certain degree of poetical celebrity, being represented by Homer and Herodotus as one of the pillars of heaven. According to Virgil, "Atlas is a hero metamorphosed into a rock. His robust limbs are converted into pillars; he bears on his shoulders the entire heavens, with all their orbs, without feeling oppression from their weight. His head, crowned with a forest of pines, is continually girt with clouds, or beaten by winds and storms. A mantle of snow covers his shoulders, and rapid torrents flow down his venerable beard." But this famous mountain is at present obscurely known to Europeans, and we wait for some fortunate traveller to give us a satisfactory and complete description of it. M. Desfontaines, who with the eyes of a learned botanist surveyed a great part of this system of mountains, considers it as divided into two leading chains. The southern one, adjoining the desert, is called the Great Atlas, the other lying towards the Mediterranean is called the little chain. Both run east and west, and are connected together by several intermediate mountains running north and south, and containing between them both valleys and table lands. This description, though general and rather vague, is the clearest that we possess. It is easily reconciled with the account given by Shaw, who describes Atlas as a series consisting of many ranges of hills successively increasing in elevation, and ter-

minating in steep and inaccessible peaks.^a But it is worthy of remark, that the great and little Atlas of Ptolemy, the one of which is terminated at Cape Felneh, and the other at Cape Cantin, differ from the chains of the French traveller, being lateral branches which go off from the main system, to form promontories on the sea coast. Another question is, whether the principal chain is continued without interruption to the east of the lesser Syrtis? or do the mountains of Tripoli, or Fezzan, and of Barca, form separate systems? The Arabian geographers seem inclined to the former opinion,^b and no person is prepared to contradict them. They tell us that "Mount Daran extends eastward from Sus in Morocco, joins the mountains of Tripoli, and then is lost in a plain." These expressions are not inconsistent with the belief that Atlas is completely terminated to the south of the Great Syrtis, from whence it is probable that a low lying territory extends a great way into the interior.

The great height of Mount Atlas is proved by the perpetual snows which cover its summits in the east part of Morocco, under the latitude of 32°. According to Humboldt's principles, these summits must be 12,000 feet^d above the level of the sea. Leo Africanus, who travelled there in the month of October, narrowly escaped being buried by an avalanche of snow. In the state of Algiers, the snow disappears on the tops of Jurjura and of Felizia in the month of May, and covers them again before the end of September.^e The Wanashisre, situated in 35° 55', and forming an intermediate chain between the maritime one and that of the interior, is covered with a mantle of snow nearly the whole of the year.^f Even to the east, where the elevation appears to diminish, the Gariano or Garean mountains to the south of Tripoli, are covered with snow for three months.

The ingredients of the rocks have not been sufficiently investigated. In the parts belonging to Tunis, Algiers, and Morocco, which were visited by M. Desfontaines, the chain of the Atlas is formed of limestone,^g and this gentleman adds that he found in the mountains large heaps of shells and marine bodies, at a great distance from the sea; a phenomenon noticed by all modern travellers,^h and which also struck the less observant minds of the ancients.ⁱ Some of the elegant marbles of Numidia, exhausted by Roman luxury, were of a uniform yellow, others were spotted with various colours.^k The Carthaginians

^a Shaw's Travels and Observations, p. 5.

^b Abulfeda. See Busching, *Magasin Géogr.* t. IV. p. 418. Hartmann, *Edrisi Geogr.* p. 143, 144.

^c Hæst's Account of Morocco, p. 78. (German translation.) Chenier, *Histoire de Maroc.*

^d 11,000 Fr. feet, or 11,750 Eng. feet nearly.—P

^e Relation du royaume d'Alger, (Altona, 1798.) t. I. p. 152.

^f *Ibidem*, 249.

^g *Flora Atlantica*, preface, p. 3.

^h Shaw's Travels, p. 470. Poirat, *Voyage en Barbarie*, II. p. 279.

ⁱ Strabo's Geography, XVII. at the end.

^k Pliny and Isidorus. Compared in the notes of Justus Lipsius on Seneca's Epistles.

employed them previously to the Romans, for constructing pavements in mosaic. But the copper, iron, lead, and other mines, worked in Morocco and Algiers, show the existence of schistous or granitic rocks. M. Pioret informs us, that in the neighbourhood of Bona, a maritime town of the kingdom of Algiers, the rocks are of quartz mixed with mica,^a and Shaw mentions that a sort of sandstone is employed for building in Algiers.^b The hills which terminate the Atlas in the desert of Barca, are calcareous masses surmounted by a crest of basalt. Such at least is the case with the mountain of Harutch, observed by Hornemann. According to Pliny, that side of the Atlas which looks toward the Ocean, that is, the southern side, raises its arid and dark masses abruptly from the bosom of a sea of sand, while the more gentle northern declivity is adorned with beautiful forests and verdant pastures.^c

But was the chain of mountains now described really the Atlas of the ancients? This is denied by a learned German, who reasons in the following manner.

“In the earliest periods of history the Phenicians ventured to pass the Strait of Gibraltar. On the shores of the Atlantic they founded Gades and Tartessus in Spain, and Lixus and several other cities in Mauritania. From these settlements they navigated northward to the Cassiterides, where they procured tin, and to the coast of Prussia, where they found amber. In the south they proceeded beyond Madeira to the islands of Cape Verd.—They frequented, more especially, the archipelago of the Canaries. Here they were astonished at the sight of the Peak of Teneriffe, the height of which, in itself very great, appears still greater by shooting up immediately from the surface of the ocean. The colonies which they sent to Greece, and more especially that which, under the conduct of Cadmus, settled in Bœotia, brought to these countries some information respecting that mountain which towered above the region of the clouds, and the Happy Islands^d over which it presides, embellished with oranges, called in their phraseology, golden apples. This tradition, propagated over Greece by the verses of the poets, was handed down to the era of Homer. His Atlas has its foundation in the depths of the ocean, and its lofty pillars reach from earth to heaven.^e The Elysian Fields^f are described as an enchanting country, situated somewhere in the west. Hesiod speaks of Atlas in a similar style, describing that personage as the near neighbour^g of the Hesperian nymphs.^h He calls the Elysian Fields the Islands of the Blessed, and places them at the western extremity of the earth.^k Later poets added new embellishments to the fables of Atlas and the Hesperides, their golden apples, and the Islands of the Blessed, the destined habitation of the righteous after death. They have also connected the expeditions of Melicertes, the Tyrian god of commerce, and those of the Grecian Hercules. It was at a comparatively late period that the Greeks began to rival the Carthaginians and Phenicians in navigation. They visited the shores of the Atlantic Ocean, yet it does not appear that their voyages in that ocean were greatly extended. It is doubtful

whether or not they ever saw the Peak of Teneriffe and the Canary Islands, for they thought it necessary to search on the west coast of Africa for the Atlas which their poets and their traditions had represented to them as a very lofty mountain situated at the western extremity of the earth. It is thus that Strabo, Ptolemy, and other geographers, have altered its position. But since there is not found in the north-west of Africa any mountain of remarkable height”—(this is a mistake)—“much difficulty arose in recognizing the true position of Atlas. Sometimes search was made for it on the coast, sometimes in the interior of the country, sometimes near the Mediterranean sea, sometimes farther to the south. In the first century of our era, when the Romans carried their arms into the interior of Mauritania and Numidia, the habit sprung up of giving the name of Atlas to the chain of mountains in the north of Africa, which extends from east to west, in a direction nearly parallel to the coast of the Mediterranean. Pliny and Solinus perceived that the descriptions of Atlas given by the Greek and Roman poets did not apply to this chain of mountains. They, therefore, thought it necessary to find in the unknown part of central Africa a locality for this Peak, of which, while they copied poetical traditions, they drew so agreeable a picture. But the Atlas of Homer and Hesiod can only be the Peak of Teneriffe, while the Atlas of the Greek or the Roman geographers must be found in the north of Africa.”^l

This reasoning we cannot consider as well founded. The passages referred to in Homer, Hesiod, and Herodotus, are extremely vague. The Atlas of Herodotus might be a promontory of the southern chain, rising from the plains of the desert, such as Mount Saluban in Bildulgerid appears to be. It agrees with the distances assigned by this historian. It is besides possible, that all these contradictions may owe their origin to that optical illusion by which a chain of mountains seen in the direction of its length has the appearance of a narrow peak. “When at sea,” says Humboldt, “I have often mistaken long chains for isolated mountains.” This explanation might be still further simplified, if it were admitted that the name of Atlas belonged originally to a promontory remarkable for its form and its peculiar isolated situation, such as many of those on the coast of Morocco. A curious passage in Maximus Tyrius seems to countenance this hypothesis; “The Hesperian Ethiopians,” says he,^m “worship Mount Atlas, who is both their temple and their idol. This Atlas is a mountain of moderate elevation, concave and open towards the sea in the form of an amphitheatre. Half way from the mountain a great valley extends, which is remarkably fertile, and adorned with richly laden fruit trees. The eye plunges into this valley as into a deep well, but the precipice is too steep for any person to venture to descend, and the descent is prohibited by feelings of religious awe. The most wonderful thing is to see the waves of the ocean at high water overspreading the adjoining plains, but stopping short before Mount Atlas, and standing up like a wall, without penetrating into the hollow of the valley, though

Peak of Teneriffe rising in full view of the rich fields of that island, (the gardens of the Hesperides).—P.

^h Theogonia, v. 517.

ⁱ Hesperides.

^k Opera et Dies, l. I. v. 166.

^l Ideler, in M. de Humboldt's Tableaux de la Nature, I. p. 141, &c. trad. de M. Eyriés. Compare Bory Saint-Vincent, Essai sur les Iles Fortunées, p. 427.

^m Max. Tyr. Dissertat. XXXVIII. p. 457, 458. edit. Oxon. à theatro Sheldon.

^a Pioret, II. p. 277.

^b Shaw, p. 152.

^c Pliny, V. cap. 1.

^d “Isles Fortunées,” Insulæ Fortunatæ.

^e Odyssey, Book I. verse 52.

^f Odyssey, Book IV. v. 563. The word is of Phenician origin, and signifies the abode of joy—(Note by M. Ideler.)

^g Προπαρ, ante, e regione, before, opposite. This might apply to the western chain of Atlas, fronting the Atlantic and the Canaries, or to the

not restrained by any earthly barrier. Nothing but the air and the sacred grove prevent the water from reaching the mountain. Such is the temple and the god of the Libyans; such the object of their worship and the witness of their oaths." In the physical delineations contained in this account we perceive some features of resemblance to the coast between Cape Tefelneh and Cape Geer, which resembles an amphitheatre crowned with a series of detached rocks.^a In the moral description, we find traces of fetichism; rocks remarkable for their shape being still worshipped by some negro tribes.

Leaving these dubious questions to the sagacity of authors who make them a subject of express research, we shall now give a view of the actual physical geography of the region of Mount Atlas.

The fertility of this part of Africa was celebrated by Strabo and Pliny. The latter extols its figs,^b olives,^c corn,^d and valuable woods.^e He observes that the wines had a certain sharpness, which was corrected by adding to them a little lime,^f and that the vineyards had a northern and western exposure.^g Strabo says that the vine trunks were sometimes so thick that two men could scarcely clasp them round, and that the clusters were a cubit in length.^h A horrible government, and a total absence of civilization, have not succeeded in annihilating these bounties of nature. Barbary and Morocco still export large quantities of grain. The olive tree is superior here to that of Provence,ⁱ and the Moors, notwithstanding the hostility to Bacchus which marks their religion, cultivate seven varieties of the vine. The soil of the plains in many places resembles that of the rest of Africa, being light and sandy, and containing numerous rocks: but the valleys of Mount Atlas, and those of the small streams which descend from it to the Mediterranean, are covered with a fertile, and well watered soil. Hence, the most common native plants flourish on the shores, or strike their roots deep into the moveable sands, while the rarest species grow in the marshes and the forests. The arid shores are covered with numerous saline and succulent plants, such as the *Salsola* and *Salicornia*, the *Panicratium maritimum*, and the *Scilla maritima*, with different species of tough long-rooted grasses, such as the *Lygeum spartum*, the *Panicum numidianum*, the *Saccharum cylindricum*, and the *Agrostis pungens*, mixed here and there with the *Heliotropium* and *Soldanella*.^k The dry and stony table-lands which lie between the valleys of the interior, greatly resemble the downs (*landes*) of Spain. They abound in scattered groves of cork trees, and evergreen oaks, under whose shadow sage, lavender, and other aromatic plants, grow in great abundance, and rise to an extraordinary height. The tall-stemmed *genista*, the different species of *cistus*, mignonette, sumac, heath, *aloe*, *agave*, and many species of *euphorbia* and *cactus*, adorn the windings and clefts of the rocks, where, braving the heat and drought, they furnish a shade and a wholesome food for the goats.

The forests which cover the sides of the mountains in the northern parts of these countries are, according to

M. Desfontaines, composed of different species of oaks, as the *Quercus ilex*, *coccifera*, and *ballota*, the acorns of which form part of the food of the inhabitants. The mastic tree, the *Pistacia Atlantica*, the *Thuya articulata*, and the *Rhus pentaphyllum*, are frequently found here. The large cypress, like a verdant pyramid, stretches its branches towards heaven; the wild olive yields excellent fruit without culture. The *Arbutus unedo* bears a red fruit resembling strawberries. The arborescent heath^l diffuses widely its delightful perfumes. All the valleys that have a moderate elevation form in April and May so many Elysiums. The shade, the coolness, the bright verdure, the diversity of the flowers, and the mixture of agreeable odours, combine to charm the senses of the botanist, who, amidst such scenes, might forget his native country, were he not shocked and alarmed by the barbarity of the inhabitants.^m On the coasts and in the plains, the orange-tree, the myrtle, the lupin, the virgin's bower, and the *narcissus*, are, in the month of January, covered with flowers and young leaves. But in June, July, August, and September, the parched and cracked soil is only covered with the yellow remains of dead and withering plants. The cork tree darkens the forest with the gloom of its scorched bark. Yet at this season,ⁿ the rose-bay^o displays its bright flowers on the banks of all the torrents and rivers, from the tops of the mountains down to the deepest valleys.

Among the cultivated plants are wheat, barley, maize, the *Holcus sorghum*, and the *Holcus saccharatus*; rice in the lands capable of being inundated, tobacco, dates, olives, oranges, figs, almonds, vines, apricots, pistachio nuts, jujubes, melons, pumpkins, saffron, the white mulberry, the *Indigofera glauca*, and the sugar-cane. The gardens yield almost all the culinary vegetables known in Europe. The inhabitants of these countries preserve their grain for several years, by burying it in large holes in dry situations. Wheat is sown in autumn, and gathered in April or May. Maize and the *sorghum* are sown in spring, and harvested in summer.^p Oats grow spontaneously.^q Some of the fruits, such as the fig,^r are inferior in quality to those of Europe; but the acorns of the oak taste like our chestnuts.^s

The animal kingdom comprehends most of the species known in the rest of Africa; we must except from these the rhinoceros, the hippopotamus, the giraffe, the zebra, and several of the monkeys.

Nature has supplied the inhabitants of the desert of Zahara with the means of crossing the immense deserts of western Africa in a few days. Mounted on the *heiree*, or camel of the desert, which resembles the dromedary, and is only distinguished from it by greater elegance of figure, the Arab, after tying up his loins, his breast, and his ears, to protect himself from the blasts of a dangerous wind, traverses with the speed of an arrow that burning desert, the fiery atmosphere of which deeply affects respiration, and is almost sufficient to suffocate any unwary traveller. The motions of this animal are so harsh and violent, that no person could bear them without all the patience, the abstinence,

^a Dalzel, Instruction sur les côtes d'Afrique, Trad. Manuscrite, avec Notes, par M. Mallard Dubecé.

^b Pliny, lib. XV. cap. 18.

^c Idem, lib. XVII. cap. 12.

^d Idem, lib. XVIII. cap. 7.

^e Idem, lib. XIII. cap. 15—19.

^f Idem, lib. XIV. cap. 9.

^g Idem, lib. XVII. cap. 2.

^h Poiret, Voyage, II. p. 81.

^k Strabo, lib. XVII. p. 568.

^k Desfontaines, Flora Atlantica; Poiret, Voyage de Barbarie, *passim*.

^l Erica Arborea.

^m Poiret, II. p. 71.

ⁿ Idem, p. 129.

^o Nerium Oleander.

^p Desfontaines, Flora Atlantica.

^q Shaw, p. 138.

^r Poiret, II. p. 267.

^s Hæst, p. 305.

and toilsome habits of the Arabs. The most indifferent variety of these camels is called *talayee*, a term denoting that the animal cannot accomplish more than three ordinary days' journey in a day. The most abundant variety called *sebayee* can make out seven. There is a kind which accomplishes nine, and is called *tasayee*, but these are exceedingly rare, and bring enormous prices. The Arab in his figurative phraseology thus describes the swiftness of the camel of the desert—"When you meet a *heiree*, and say to the rider *salem alik*, (peace be with you,) he is out of sight before he can return the *alik salem*, for he flies like the wind." Mr. Jackson relates facts on this subject which are almost incredible. A *heiree* arrived at Mogadore, in seven days from the Senegal, having traversed 14 degrees of latitude, and, including the windings of the road, had travelled 1000, or 1100 English miles, making about 150 in a day. A Moor of Mogadore mounted his *heiree* in the morning, went to Morocco, which is 100 English miles distant, and returned in the evening of the same day with a parcel of oranges for which one of his women had longed. Mr. Jackson allows that these facts put the faith of the reader to a severe test; but three older travellers give similar accounts. It is at the same time added, that camels of this quality are but few.^a Geography might receive some interesting accessions, if Europeans, well armed, and in sufficient number, could procure these fleet creatures, and learn to ride them, in order to explore the deserts of northern Africa. Asses are also used, and are of two sorts, the one strong and large, the other very small. Morocco produces fine horses of the Arabian breed. In the whole of Barbary the cattle are small and lean; the cows give little milk, and that of an unpleasant taste.—Goats and sheep are plenty. Pigs being held in abhorrence among Mahometans, are only found in the houses of Europeans. Cats, dogs, and European poultry, are common. The Arabs breed a great many bees.^b

The panther has in all periods been a famous animal, but it is only within these few years that he has been described with precision.^c The ounce and leopard of Buffon seem to be the panther at different ages; yet it would be rash to expunge them at once from the list of quadrupeds. The *bubalis*, an animal of the antelope kind, belongs to the deserts of the north of Africa. It lives in a gregarious state, and flocks of them come to the pools and canals of Egypt to assuage their thirst. The hieroglyphics in the temples of Upper Egypt contain several figures evidently representing this animal. Among the other animals of the same genus common in these countries, the *pasan* is the most frequent, then the *corinne*, which differs very little from the *kevel*, and the proper gazelle.^d In the forests and deserts are found the elephant, the lion, the African boar, two species of the *hyæna*, the ferret, which lives in the bushes, and some apes, among which are the *mona*^e and the *magot*.^f According to a conjecture of M. Walckenaer, the rats seen by Windhus the traveller, in the neighbourhood of Mequinez, "rats as large as rabbits, and which like them burrow in the earth," were the *arctomys gundi*, a species of marmot. It has been disputed whether

there are any bears in Africa. The learned Cuvier doubts their existence in such southerly latitudes, but Baldæus, a well-informed writer, says that he saw them in Ceylon.^g It cannot be denied, that two grave authors, Herodotus and Strabo, assert the existence of the bear in Africa, distinguishing him from the lion and from the panther. Dion, or his abridger Xiphilin, makes a similar assertion. Virgil, Juvenal, and Martial, might be quoted to the same effect.^h Aristotle does not expressly exclude the bear from Africa.ⁱ On these accounts we ought not yet to reject the testimony of modern travellers, who maintain the existence of this animal in the higher parts of Mount Atlas, only acknowledging that it cannot be very common.^k

Ostrich hunting is a curious amusement of this country. Some twenty Arabs, mounted on the horses of the desert, which are as transcendent among horses as the *heiree* is among camels, proceed to windward in quest of an ostrich track, and when they have found one, follow it in a body with the utmost rapidity, keeping at the distance of half a mile from one another. The ostrich, fatigued with running against the wind, which beats against his wings, turns on the hunters and attempts to penetrate their line; but they surround him, and fire all together on the bird, till he falls. Without this address they could never take the ostrich, which, though deprived of the power of flying, surpasses in running the swiftest animals.

The south wind brings along with it clouds of locusts, which, by devastating the fields, create famines, and often cover the ground so completely, as to make a traveller lose his way.^l The wild bee fills the trunks of the trees with aromatic honey, and with wax, which are gathered by the inhabitants in great abundance.^m

To the preceding physical delineation, which is applicable to the States of Tripoli, Tunis, Algiers, and Morocco, we shall subjoin an equally general view of the inhabitants.

The inhabitants of the towns and cultivated plains are distinguished by the name of Moors. Though they speak a dialect of the Arabic, abounding in expressions peculiar to themselves, their physical constitution, their complexion, which is whiter than that of the Arabs, their countenance, which is more full, the less elevated nose, and less expressive physiognomy, seem to show that they are descended from a mixture of the ancient Mauritians and Numideans, with the Phenicians, Romans and Arabians. Since Sallust asserts, that the Numidians and Mauritians had sprung from an Asiatic colony, composed of Medes, Armenians, and Persians,ⁿ it would be an interesting thing to examine thoroughly the characteristic idioms of the Moorish language.^o The accounts given by European travellers make the moral character of this nation a compound of every vice. Avaricious and debauched, bloodthirsty and effeminate, greedy yet idle, revengeful yet fawning, they do not redeem these vices by a single good quality: But may we not suppose that the hatred which the Moors have vowed against their Christian persecutors, ever since they were driven out of Spain, has excited cor-

^a Hæst's Account of Morocco, translated from Danish into German, p. 289. Shaw's Travels in Barbary, p. 157. Lempriere's Travels.

^b Nachrichten und Bemerkungen über Algier, &c. t. III.

^c Cuvier, Ménagerie du Muséum, art. Panthère.

^d Idem, *ibid.* art. Corinne.

^e *Simia mona*, varied monkey.—P.

^f *S inuus*, Barbary ape.—P.

^g Zimmermann, Geographische Geschichte, &c.

^h Salmassii, Exercitationes Plinianæ, I. p. 228.

ⁱ Hist. Animalium, VIII. c. 28.

^k Poiret, II. p. 238. Shaw, p. 177. Hæst, p. 291.

^l Hæst, p. 300. Agrell, Lettres sur le Maroc, p. 319.

^m Poiret, I. p. 324. Hæst, p. 303.

ⁿ Sallust in Jugurtha.

^o Norberg, Disput. de gente et lingua Marocana, Lend, in Scania, 1787.

responding feelings among our travellers? The Moors are Mahometans, and belong chiefly to the fanatical sect called Maleki. They, like the fanatics of many other religions, consider their piety as compensating for every moral defect, and heresy as a stain which can scarcely be rendered more tolerable by the brightest assemblage of moral virtues. They have among them many saints; some distinguished by their absolute inaction, others by a turbulent and mischievous insanity. These last have been seen to knock down an ass, and devour the flesh still reeking and bloody.^a Several of the emperor's horses have been raised to the dignity of saintship: one, in particular, when Commodore Stewart was there,^b was held in such reverence by the monarch, that any person who had committed the most enormous crime, or had even killed a prince of the blood royal, was perfectly secure as soon as he laid hold of the sainted animal. Several Christian captives had by this manœuvre saved their lives. When his majesty intended to confer a signal mark of favour, he and his horse drank successively from the same bowl, and then caused it to be handed to the distinguished individual. These people are addicted in an uncommon degree to a superstitious belief in the influence of evil eyes. An emperor of Morocco kept his son in a state of rigorous confinement, to preserve him from that fatal influence. One part of their marriage ceremonies is to make a solemn procession for the express purpose of ascertaining the purity of the betrothed maid. In no part of the world do the men discover more sensitive jealousy, both before and after wedlock. In Morocco, and through the whole interior, the Moors are temperate in their eating, and simple in their dress; but in Tunis and Algiers the women wear elegant dresses, glittering with gold and diamonds.^c The whiteness of their skin is only discovered by their bare feet. To be able to read the Alcoran is in the eyes of most Moors the summit of polite learning. They have also their astrologers, and they are fond of history and poetry. Their square flat-roofed houses are sometimes ornamented in the interior with rich carpets and spouting fountains. Horse-exercises, and shooting-matches, with feats of rope-dancing, form their favourite pastimes. At their funerals, a long train of women paid for crying and howling, accompanies the dead bodies to their tombs.

The nomade Arabs, who brought hither the Mahometan religion from Asia, and who have arrived since that period, preserve the purity of their race, which is distinguished by a more masculine physiognomy, more lively eyes, and almost olive complexions. Their women, destitute of personal attractions, enjoy a great degree of freedom. There would be no use, indeed, in concealing their brown and haggard countenances, which operate rather as antidotes than incitements to guilty passions. The women of some tribes ingrain black lines and figures on their cheeks and bosoms.^d The tents of the Arabs, covered with a coarse stuff, or with palm leaves, have preserved the form of an inverted boat, which, according to Sallust, was that of the *mapalia* of the Numidians.^e They call a cabin of this kind *shaima*, and a group of them forms a *duar*, or hamlet, which is in the form of a ring, with the Sheik's house in the centre, and is frequently surrounded with a thorn hedge, as a de-

fence against the lions which roar around them. The number of these Arabs in the empire of Morocco alone is sometimes estimated at 40,000. The Arabs as well as the Moors send caravans of pilgrims to Mecca. In Asia both these classes of people are comprehended under the name of Magrebi, or Mogrebbins, a term which signifies "people of the west."

The Berbers, who are totally distinct from the Arabs and the Moors, seem to be the indigenous race of northern Africa. They probably comprehend the remains of the ancient *Gatuli* to the west of Mount Atlas, and of the Libyans to the east.^f They form at present four distinct nations. 1. The Amazirgh, called by the Moors *Shilla*, or *Shulla*, in the mountains of Morocco. 2. The Kabyls, in the mountains of Algiers and Tunis. 3. The Tibbos, in the desert between Fezzan and Egypt; and, 4. The Tuariks in the great desert. The identity of the language spoken by these different tribes, which is perceived by a comparison of their vocabularies,^g is one of the most important discoveries made in ethnographic history. This language has not hitherto been found to show any analogy to that of the Barabras of Nubia, or of the Shillooks of Abyssinia, but it is not impossible that farther researches may discover a connection. The Berber language, which the Amazirgh call *Tamazeght*, and the Kabyls, *Showia*, seems to us to have quite an original character, though approaching to the Hebrew and the Phœnician. The Berbers have a complexion of mixed red and black, a tall and handsome form, and a spare habit of body.^h In religious fanaticism they surpass even the Moors. When an opportunity is presented they occasionally gratify their antipathies by shedding the blood of Jews and of Christians. The Shillahs, however, eat the flesh of the wild boar, and drink wine. The Maraboos, who are honoured as a sort of saints, exercise in many of the Kabyl villages a despotic authority. These hypocrites distribute amulets, and affect to work miracles. Two of the most eminent of these at present in Morocco are Sidi Hamet and Sidi Alarbi, and hardly any thing is done in that empire without consulting them. Though they are considered as endued with the gift of prophecy and of miracles, they are not distinguished in the least degree by personal austerity or self-denial. In their respective districts no tribute is paid but to them. With their revenues and the valuable offerings which they continually receive, they support an armed force, with which they are always surrounded, and maintain a liberal establishment of wives and concubines, without incurring the slightest abatement from the sanctity of their character. In other places, especially among the Shillahs, there are sheiks who rule the small tribes into which the nation is divided. Those who live in the high valleys of the Atlas are almost entirely independent. In Morocco some tribes have joined together under princes or hereditary kings, called *Amargar*, whose patriarchal authority extends no farther than to the punishment of theft and murder. They manufacture their own gunpowder. Their meals consist of brown bread, olives, and water. The poverty and dirtiness of their dress give them a most savage appearance. Yet the Berbers manifest, in the cultivation of their fertile fields, a laborious disposition

^a Bruns, Afrika, VI. p. 126.

^b Windhus's Journey of Mequinez, (London, 1723.)

^c Nachrichten, &c. i. e. an Account of Algiers, I. p. 493. Altona, 1798.

^d Agrell, p. 39, German translation.

^e On the etymology of this word, see Bochart, Canaan I II cap. 9.

^f Mithridates, by Adelung and Vater, III. p. 45.

^g Hæst's Account of Morocco, (in Danish,) p. 128. Jones, Dissertatio de lingua Shillensi, in Dissertat. ex Occas. Sylloges, &c. Amsterd. 1715. Shaw's Travels, p. 52. Hornemann. Marsden. Venture

^h Hæst, p. 141. Lempriere. Chenier, Shaw, &c.

and a degree of intelligence which might be turned to good account. They furnish the indolent Moors with corn, olives, and all sorts of provisions. Their villages, some of which may, for size and population, be called towns, are fortified with watch-towers, from which they can spy the approach of an enemy. On the slightest signal all the men are in arms. They handle the musket with much skill, tossing it in the air, catching it again, and discharging it with astonishing accuracy and rapidity.

Besides these genuine African nations, the northern part of this continent contains some foreign colonists, among whom are the Turks, the masters of Algiers, and once of Tunis and Tripoli,^a and the Jews, who are spread over the whole of Barbary, even among the valleys of the Kabyls.

This country, though one of the most salubrious, and the most propitious to the multiplication of the human race, is, in consequence of the absence of a regular government, exposed to calamitous visitations, and particularly to the ravages of the plague. Mr. Jackson, British consul at Mogadore, has drawn a horrible picture of a plague, which, some years ago, depopulated the empire of Morocco. The deaths in the city of Morocco amounted to 50,000, those at Fez to 65,000, at Mogadore to 4500, and at Saffi to 5000. The survivors had not time to bury the dead with any regularity. The bodies were thrown into large trenches, which, when nearly full, were covered over with earth. The young, the healthy, and the vigorous,

were first attacked; then the women and children; and last of all, the lean, the exhausted, the valetudinary, and the aged. When the scourge disappeared, a total revolution was found to have taken place in the fortunes and situation of individuals. Some who had previously been mere labourers now found themselves in possession of large capitals, and purchased horses which they scarcely knew how to ride. Provisions were sold in great abundance and extremely cheap. Flocks, with their shepherds, wandered in the pastures without owners. Great temptations were thus presented to the Arab, the Berber, and the Moor, all equally prone to theft. But they were restrained by an apprehension for their lives: for the plague, (*el khere*), is believed by them to be a divine judgment in punishment of their crimes. It was, therefore, imperiously necessary to avoid being caught by the avenging angel in the very act, and rather to regulate their conduct so as to prepare themselves for paradise. The price of labour was soon out of all bounds; and as the number of persons capable of working was not sufficient to supply the demands of the rich who were able to pay them, the latter found themselves under the necessity of performing little domestic offices with their own hands. They ground corn and baked bread, and the simplicity of the golden age seemed to spring up in this recommencement of the organization of society. Many large estates which remained without owners were seized by the Arabs of the desert.^b

^a The governments of Algiers, Tunis, and Tripoli, profess to acknowledge the supremacy of the Porte, and to obey its firmans, but their obedience is in a great measure nominal. The army and all the

officers of government in Algiers are Turks, and the sovereign is elective by the soldiers. In Tunis and Tripoli the sovereignty is hereditary.—P.
^b Jackson's Account of the Empire of Morocco. London, 1809.

BOOK LXV.

THE BARBARY STATES, AND THE GREAT DESERT OF ZAHARA.

PART II.

Detailed Descriptions.

IN the preceding Book we have delineated the physical geography and ethnography of the whole Atlantic region. We must now take a view of the different states or kingdoms of Barbary, and the cities and towns included in these political divisions. We shall first turn our attention to the small states scattered over the desert which bounds Egypt on the west. Then passing the *Syrtes*, we shall follow the chain of Mount Atlas, giving an account of the States of Tripoli, Tunis, Algiers, and Morocco, and conclude with a description of the Great Desert of Zahara.

The country of Barca is the first that comes in our way on leaving Egypt. Some call Barca a *desert*, and the interior certainly merits that name; others call it a *kingdom*, an appellation founded on the existence of this country as the independent kingdom of *Cyrenaica*, governed by a branch of the Ptolemies. The coast of Barca, once famed for its triple harvests,^a is now very ill cultivated; the wandering tribes of the desert allow no rest to the inhabitants, or security to their labours. The sovereignty of it is divided between two Beys, one of whom resides at Derne, a town surrounded with gardens, and watered by refreshing rivulets: his subjects may amount to 30,000 tents or families. The other lives at Bengazi,^b a town of 10,000 houses,^c with a tolerable harbour, on a coast abounding with fish, and in a fertile territory, from which wool is exported. The Bey of Tripoli appoints these two governors, whose obedience to his authority is often ambiguous.^d Among the magnificent ruins of *Cyrene*, the limpid spring still flows from which the city had its name. A tribe of Arabs pitches its tents amidst its sadly mutilated statues, and falling colonades. Tolometa, or the ancient *Ptolemais*, the port of Barca, preserves its ancient walls, a temple, and some inscriptions. This coast seems to hold out an invitation to European colonies; it seems to be the property of no government or people. A colony established here would rediscover those beautiful places which the ancients surnamed the Hills of the Graces, and the Gardens of the Hesperides. Such, however, is the latent rivalry of the civilized world, in matters connected with power and vanity, and the phantoms attached to the ideas of national greatness, and even national existence, that the most beneficent efforts of any people are liable to be resisted by the jealousy of another of equal pretensions.

The travels of the intrepid Hornemann have procured

for us a little information respecting the countries situated to the south of Barca. A chain of mountains runs west from the Natron Lakes as we leave Egypt, and taking successively the names of Mokarrah and Guerdoba, extends to the oâsis of Audjelah. These mountains are calcareous, naked, and precipitous. At their feet we pass over a flat marshy country, from one to six miles broad, and abounding in springs. Following these mountains westward, we first arrive at the oâsis of Siwah, which forms a small independent state. The inhabitants speak the Tibbo dialect of the Berber language. This is the country of Ammon of the ancients. The ruins of Ummibida seem to belong to a fortified caravansera, connected with the temple of Jupiter Ammon. They contain some hieroglyphics in relief. Their materials consist of a limestone brought from the adjoining mountains, containing petrified shells and marine animals. Diodorus speaks of the temple situated in the fort as distinct from that of the forest near the fountain of the sun.^e The arable territory of the oâsis of Siwah is about six miles long and four broad. The chief plantations consist of date trees; there are also pomegranates, fig trees, olives, apricots, and bananas. A considerable quantity of a reddish grained rice is cultivated here, being a different variety from that which is grown in the Egyptian Delta. It also produces a sufficient quantity of wheat for the consumption of the inhabitants. Abundance of water, both fresh and salt, is found. The fresh water springs are mostly warm, and are accused of giving rise to dangerous fevers, when used by strangers.^f The population of Siwah is capable of furnishing about 1500 armed men. This country is the Santariah of Abulfeda, and the Sant-Ryah of Edrisi. According to Ebn-Ayas, an Arabian author, the zebra is met with in the adjoining deserts.^g

From Siwah to Audjelah the mountains rise perpendicularly from the midst of the plain. The naked rock is not covered with a particle of soil, or even with sand. A sandy plain at the foot of the mountains, presents on its surface an immense horizontal calcareous bed, which contains no traces of petrification, while the adjacent mountains, also calcareous, are full of the remains of marine animals and shells. These are also met with here in large isolated heaps.

The oâsis of Audjelah, the Augila of Herodotus, contains three towns or villages, and is the residence of a bey, who is dependent on the bey of Tripoli. The town of

^a See Herodotus and Strabo, and our volume on the History of Geography, (vol. I. p. 61. 176, of the original.)

^b Bingasi.

^c So stated in the original; but it can only refer to a former period, when it was a large and beautiful city. Its present population is stated at only 5000.—P.

VOL. II.—NOS. 63 & 64.

^d Lemaire, consul Français, Voyage dans les Montagnes de Derne dans le deuxième Voyage de Paul Lucas, II. p. 110, &c.

^e Diodorus, edit. Wessel, p. 589.

^f Voyage de Browne, t. I. p. 34. de la trad. Française.

^g Langlès, Mémoire sur les Oasis.

Audjelah is only a mile in circumference, and contains only narrow and dirty streets of mean houses built of limestone. The public buildings have a most wretched aspect. At Audjelah is the termination of the long chain of mountains which bounds the desert of Barca on the south, and separates it from that of Libya, running west in a direction towards Fezzan. A little beyond this we find another chain called Marai, of the extent and direction of which we know but little, only that it appears to send off ramifications to the north. Then we find the singular mountainous desert called Haroodjeh,^a which is probably the *Mons Ater* of Pliny. It commences at two or three days' journey from Audjelah, reaches to the mountains by which Fezzan is bounded, and is prolonged to the north of Fezzan; but the branches which it forms in this direction, and those also to the south, are less known. Haroodjeh presents a mass of broken mountains mostly bare and sterile, composed of black basalt. Their appearance is volcanic and exceedingly wild. In several places the ranges of basalt alternate with others of limestone. The low calcareous hills bounding the plains are composed of petrifications, which consist mostly of the heads of fishes.

It is probably in Haroodjeh that the solution will one day be found of the enigma of the Arabian geographers, respecting a town, which they call Raz Sem, the inhabitants of which were turned into stone. Shaw and Bruce did not penetrate so far as to procure information deserving of reliance. The tradition has the appearance of concealing under it a curious fact, the existence of mummies in some *Necropolis*, or city of the dead, like those of Egypt.

From Haroodjeh we enter Fezzan. Major Rennel and the learned Larcher consider Fezzan as the ancient country of the *Garamantes*; a point still, however, very doubtful, as we have shown in our History of Geography.^b

Fezzan is bounded by the state of Tripoli on the north, by the desert of Barca on the east, and by the great desert of Zahara on the west and south. The greatest length of the cultivated country, from north to south, is about 255 miles, and its greatest breadth 200 miles from east to west; but the mountainous region of Haroodjeh is comprehended in its territory. According to Hornemann, this small state contains 100 towns and villages, of which Moorzook^c is the capital. Sakna, Wadan, and Germah, are the names of others, the last of which resembles the ancient *Garama*. There is also Zoolah,^d which according to old travellers, contained magnificent ruins, but none such were seen by Hornemann. During the south wind the heat here is scarcely supportable even to the inhabitants, who then sprinkle their rooms over with water, in order to be able to breathe. The winter is not so mild as might be expected, owing to a cold and piercing north wind, which completely chilled the inhabitants while Hornemann was there, and obliged this traveller himself, though inured to a cold climate, to draw near a fire.^e Rains here are infrequent and scanty. Hurricanes sometimes blow from the north, darkening the atmosphere with clouds of dust and sand.

In the whole country there is no river or stream worthy of notice. The soil is a deep sand covering calcareous

rocks or earth, and sometimes beds of clay. There are numerous springs, which supply water for the purpose of agriculture. The whole of Fezzan, indeed, abounds in water, at a moderate depth under ground, derived, no doubt from the rains which fall on hills more or less distant, perhaps on the confines of the desert, and though absorbed by the sand, find their level among the loose strata, across a broad extent of desert, till they become accessible in Fezzan, and impart to this country its characteristic fertility. Dates are the natural produce and the staple commodity of Fezzan. Figs, pomegranates, and lemons, also succeed. A great quantity of maize and barley is cultivated; but the inhabitants do not raise corn sufficient for their own consumption, and receive a great part of what they use from the Arabs. Some ascribe this to their indolence; but remarks of that kind are often gratuitous conclusions, arising from a deficient comprehension of the principles of wealth and commerce. If the inhabitants are indolent, how do they contrive to procure an equivalent to give to these Arabs for their wheat? The latter may feed them because they are rich, but not simply because they are unwilling to work. Such facts, if they authorize any inference on the subject, would rather incline us to think that the industry of the people was such as to produce a population greater than the food produced in the country is able to maintain, or that a produce of a more delicate kind was given by them to the importing Arabs, in exchange for an article which goes farther for the purposes of nutriment. Fezzan abounds in pulse and culinary vegetables. The most common domestic animal is the goat. Sheep are reared in the southern parts. The ass is their beast of burden and draught. Camels are extremely scarce and high priced. All these animals are fed on dates or date-stones. In the province of Mendrah, natron floats in large masses on the surfaces of several lakes, over which a dense fog is frequently seen to hover.

The Fezzanese send caravans to Tripoli, Tombuctoo, and Bornoo. They trade in gold dust and black slaves. They are acquainted with the cowrie shell, or *cypræa moneta*, a circumstance which shows that their commercial relations extend to the coast of Guinea.^f From October to February, Moorzook is the great mart and rendezvous of the different caravans which come from Cairo, Bengazi, Tripoli, Gadames, Tooat,^g and Soodan.

According to some, the sultan of this country is tributary to the Bey of Tripoli;^h according to others, he only sends him a present.ⁱ According to Hornemann his revenues arise from his landed estates; others mention three or four moderate taxes. The population of Fezzan is estimated by Hornemann at 60,000 or 70,000 souls. The variety of their complexion shows that they are a mixed people. The indigenous race is of ordinary stature, of little vigour, with brown complexions, black short hair, a form of countenance which in Europe would be called regular, and a nose less flattened than that of the negro. The women, as in the whole of Africa, are immoderately fond of dancing. According to Hornemann, all the inhabitants are Mahometans; according to others, there are also some pagans among them, who live in a good understanding with the Mussulmans.^k The Fezzanese intoxi-

^a Harutsch.—Hornemann.

^b Book X.

^c Mourzouk, Mourzuk.

^d Zawila or Zuila

^e Proceedings of the African Association, vol. I.

^f Bruns, Afrika, V. p. 315.

^g Tuat or Twat, an oasis in the Zahara, Lat. 23° N. Long. 1° to 6° E.
^h Abderrhaman Aga, Tripolitan Ambassador, Account given to Mr. Niebuhr in the New German Museum, III. p. 992.

ⁱ Proceedings of the African Association, I.

^k Nouv. Mus. Allem. p. 993.

cate themselves with the juice of the date-tree ; in other respects they are very abstemious, which is partly the result of necessity. Hornemann says, that a person who can afford to eat bread and meat daily is esteemed a man of wealth. The houses of Fezzan are built of sun-dried bricks, made of calcareous and argillaceous earth. They are extremely low, and lighted only by the door. In this country young persons are often mutilated and transformed into eunuchs.

The Tibbos,^a a Berber nation, occupy the almost desert countries to the south-east of Fezzan, and from these extend eastward along the southern boundary of Haroodjeh, and the desert of Audjelah, as far as the vast sandy desert of Levata, by which Egypt is hemmed in on the west. This desert is the eastern limit of the Tibbos. The space on the south, lying between the Tibbos and the kingdom of Bornoo, is in the possession of the wandering Arabs, some of whose tribes live in caverns or grottos during the intense heats. Berdoa, an oäsis mentioned by Leo, is perhaps identical with the capital of the Boorgon Tibbos.

The state of TRIPOLI, properly so called, extends on the north of Fezzan between the great and the little *Syrtes* ; that is, between the Gulf of Sidra and that of Gabes.

Here the climate is extremely unpleasant ; the heat of the day and the coldness of the night being equally insupportable. From the month of May till the end of October no rain falls. Vegetation is more abundant in winter than in summer. The soil is tolerably fertile, producing dates, oranges, citrons, figs, almonds, and many other fruits. In winter there is abundance of all sorts of pulse, cabbages, turnips, and onions : in summer cucumbers and melons. Two days' journey south from Tripoli there is on Mount Garean a great plantation of saffron. Lions and panthers are rarely seen : jackals and hedge-hogs are numerous. Much inconvenience is created by serpents and scorpions.^b

The comparative geography of the towns is involved in an obscurity which it is not in our power to dissipate. There were three conspicuous towns in the Syrtic region ; and in the fifth century this region received the name of Tripoli, which means "the country of the three cities ;" but, to determine what these towns were, and what modern localities correspond to them, would require a long and not very amusing discussion. It seems to be certain, that at the time of the first invasions of the Arabians, the city of Sabrata, apparently as the capital of the province, had in common language received the name of Tripolis. It is still called Sabart, and "Old Tripoli." Its inhabitants took refuge in the place now called New Tripoli. This city may have been called Neapolis by the Byzantine authors, but it was certainly different from that which Pliny and the rest of the ancients designated under that name. Was it identical with Ocea ? This has been denied without decisive evidence. It is at least an ancient city, for it has a triumphal arch, dedicated, as appears by the remains of the inscription, to Marcus Aurelius Antoninus, surnamed the philosopher, and to his imperial col-

league, Lucius Verus.^c After being taken from the Arabs by Roger of Sicily, and occupied by the troops of Charles V. and by the Knights of Malta, it always returned into the hands of the Mussulmans ; but industry and trade have been much injured by these revolutions. Some stuffs are manufactured here. The harbour opens in a semicircular form, and is feebly protected by old fortifications.

To the east of the capital is Lebida, the ancient *Leptis magna*, with the remains of a temple, a triumphal arch, and an aqueduct ;^d also Mesurate, or Mezrata, the residence of a Bey. To the west we find Arzori, of sufficient importance in the fifth century to give its name to the province which was called *Arzugum Regio* ; and the island of the Lotophagi, now called *Zerbi*. The small towns on the borders of the two *Syrtes*, obscure in modern, as they were in ancient geography, seem to disappear as rapidly as the shifting sand hills by which they are surrounded. The populous villages of Mount Garean are partly composed of grottos cut in the rocks. The tombs are sometimes over the dwellings of the living.^e

The State of Tripoli, possessing an extensive territory, but depopulated, full of barren districts, and a prey to anarchy, is the weakest of the Barbary States. The hereditary prince, or pasha, who reigns here, does not annex to his name the title of *Dey*, but only that of Bey. He is more dependent on the Sublime Porte than the princes of Tunis and Algiers. He does not maintain regular troops, and his navy consists of some xebecs and armed polacres. The Danish frigate the *Naiad*, of 40 guns, commanded by Captain Sten-Bille, was perfidiously inveigled into the harbour of Tripoli, where it was attacked by the whole Tripolitan navy. The frigate drove off all the xebecs and polacres, and made the pasha tremble in his palace, so that he offered more moderate conditions than he usually exacts.

Tripoli exports the wool of Barca, gold dust, ostrich feathers, and slaves brought from the interior of Africa, senna, wax, and morocco leather. Caravans regularly arrive here from Fezzan, Morocco, and Tombuctoo.

To the west of Tripoli is the kingdom of TUNIS, the ancient *Africa Propria*, and the seat of the Carthaginian power. In the middle age, the State of Tripoli was subject to Tunis, of which Barbarossa took possession in 1533. At the present day, the Tunisians, more civilized than the Algerines, are their inferiors in power, and have some difficulty to support their independence. The State contains four or five millions of inhabitants. The Moors, who are the agriculturists and merchants, are less numerous than the nomade Arabs. The Turkish and Mameluke soldiery are comprehended under the designation of *hanefi*, and are now deprived of all influence. The princes, who are hereditary, are descended from a Greek renegado, and a Genoese female slave, but they are surrounded by Moors. The sovereign is called Kamouda Bey, a person of extraordinary vigour of character, and has now reigned nearly thirty years, without any attempt having been made to shake his authority. He is not the legitimate heir, yet lives on terms of intimacy with his cousins, who ought to

^a Tibboos, Tibboos.

^b Rothmann's Letters on Tripoli, in Schlotzer's Political Correspondence. Vol. IX. No. VI. (in German.)

^c Picturesque Travels in Caramania, &c. from the cabinet of Sir Robert Ainslie. London, 1809.

^d Stromberg's Remarks on the Trade of Tripoli, (in Swedish.)

^e Rothmann, Letters on Tripoli.

have inherited the throne. He superintends all the departments of government, and extends the protection of the law to Christians and Jews. The regular army does not amount to 20,000 men, and the navy consists of a few vessels armed for cruising. Addicted to agriculture, and other branches of industry, the Tunisians are less given to piracy than the other people of Barbary. The State revenues may amount to a million sterling.^a

The heat becomes insupportable in July and August, when the south wind brings the heated air from the interior of Africa. Some branches of the Atlas contain elevated and temperate regions. A fertile plain lies along the river Mejerda, the *Bagradas* of the ancients. Among its minerals are found alabaster, crystal, clay, plumbago, iron, and lead. The cattle are small and delicate. The horses are a degenerate breed. The sheep of Zahara, which are bred here, are as large as deer. Here are lions, panthers, hyænas, jackals, and other ferocious animals.

The southern part is sandy, rather level, barren, and dried up by the solar heat. It contains a large shallow lake called Loodeah,^{b c} which is the *Palus Tritonis* of the ancients. The country along the sea shore is rich in olives, and contains many towns and populous villages. But the western part is full of mountains and hills, watered by numerous rivulets, with highly fertile banks, yielding the finest and most abundant crops. Even the Mejerda is not navigable in summer. The generality of the soil is impregnated with sea salt and nitre, and salt springs are more plenty than fresh ones.

The city of Tunis is one of the first in Africa. It has a harbour, with good fortifications. The only fresh water to be had is rain water. This city has manufactures of velvets, silks, cloths, and red caps, which are worn by the people. The chief exports consist of woollen stuffs, red caps, gold dust, lead, oil, and morocco leather. The most active part of the trade is carried on with France. In no part of Barbary are the Moors so tolerant and so courteous as here. The commercial spirit of ancient Carthage seems to hover over this locality, so long the focus of African civilization and power. The ruins of that ancient city are to the north-west of Tunis. Her harbours, once the asylum of so many formidable fleets, seem partly filled up by alluvial depositions. In the south-east part are seen some remains of the moles by which they were bounded.^d A noble aqueduct is still to be seen, a monument of Roman power, under which the second Carthage flourished. The emperor Charles V. caused a drawing to be made of it, and the design was arranged by the celebrated Titian, to serve as a model for some tapestry to be executed for the Austrian court.^e

Among the modern places we may mention Barda, the Tunisian Versailles, being the palace in which the Bey resides. The Goletta, a well appointed fortress, commands the roadstead of Tunis, and the entrance of a large lagoon, which is scarcely navigable for boats. Biserta, a fortified town, is situated on a lagoon, which is exceedingly well stocked with fish, and might be formed into a magnificent harbour.

Porto-Farina, situated to the north-west on the Medi-

terranean, has an excellent harbour, which has become foul with rubbish. The ancient Utica, where the younger Cato died a voluntary death, was near this place. Soosa,^f a trading town, built on a rock, has a castle, and a good harbour on the Mediterranean. Hamamet, Sfakes, and Gabes, have also harbours or roadsteads. In the interior we notice Kairoan,^g a city founded by the Arabians, and for some centuries the capital of Africa. The Mussulmans boast of its principal mosque, supported, as they say, by 500 granite columns. Toser, on Lake Loodeah, is a great mart for wool.

The Bey of Tunis has sometimes disputed with the Bey of Tripoli the sovereignty of the small state of Gadames, which is at a distance in the interior, to the south of the lesser Syrtis. Gadames had once a flourishing trade, which has declined since the caravans, in going from Tripoli to Tombuctoo, have stopped at Agadez, instead of this place. All the caravans from the interior bring slaves, ostrich feathers, ivory, amber, senna leaves, and gold dust. Gadames is called by a modern author Gdamsia.^h

Proceeding westward, we enter the state of ALGIERS. This kingdom, watered by the Shellif and the Wadi-Jiddi, is crossed in its southern part by the chains of the Atlas, called Lowat and Ammer. We have described these chains, and mentioned the mountain of Jurjura, one of the highest in Barbary. This chain is about twenty-two milesⁱ long from north-east to south-west: the chains of Wannoojah and of Aures form the continuation of it to the east. Full of rocks and precipices, they are covered with snow for more than nine months, perhaps the whole year.

According to M. Desfontaines,^k the territory of Algiers, with the exception of the parts bordering on the desert, is less sandy and more fertile than that of Tunis. He found the climate more temperate, the mountains higher and more numerous, the rains more abundant, the springs and streams more frequent, the vegetation more active and more diversified. The mountains arrest the clouds that come from the north, and condense them by means of the snows which cover their summits, so that they fall down in rain. There are many salt rivers and springs, and near the lake called Marks there is a mountain of rock salt. Several mineral springs are known. Earthquakes are frequent, but not disastrous. There is a sandy plain which the Moors call Shott or Shatt, which is sometimes inundated, and receives five small rivers.

According to Mr. Shaw, the boundary of this state, with that of Morocco, is Mount Trara, which lies north and south, forming with its northern extremity Cape Hone, called by the inhabitants Hunein or Mellack: others extend it to the little river of Mulloia or Malva. It is a matter of little moment, as the country which lies between these two states is the desert of Angara, a sandy country, which appears to be still, as in the time of Leo Africanus, the abode of lions, ostriches, and predatory Arabs, who plunder every defenceless traveller. On the south the state of Algiers scarcely extends farther than the river Wadi-Jiddi. It is divided into four provinces, Mascara in the west; the province of Algiers; Titeri, to the south of

^a Châteaubriand, Mémoire sur Tunis, dans l'Itinéraire à Jérusalem. Mac Gill's Account of Tunis. London, 1811, p. 24—39, &c.

^b Bruns, Afrika, VI. p. 329.

^c Loodeah.

^d Châteaubriand, Itinéraire, III. p. 186, &c. Jackson, Memoir on the Ruins of Carthage.

^e Fischer d'Arlach, Architecture Historique, liv. II. Planche II. Vienne, 1721.

^f Susa.

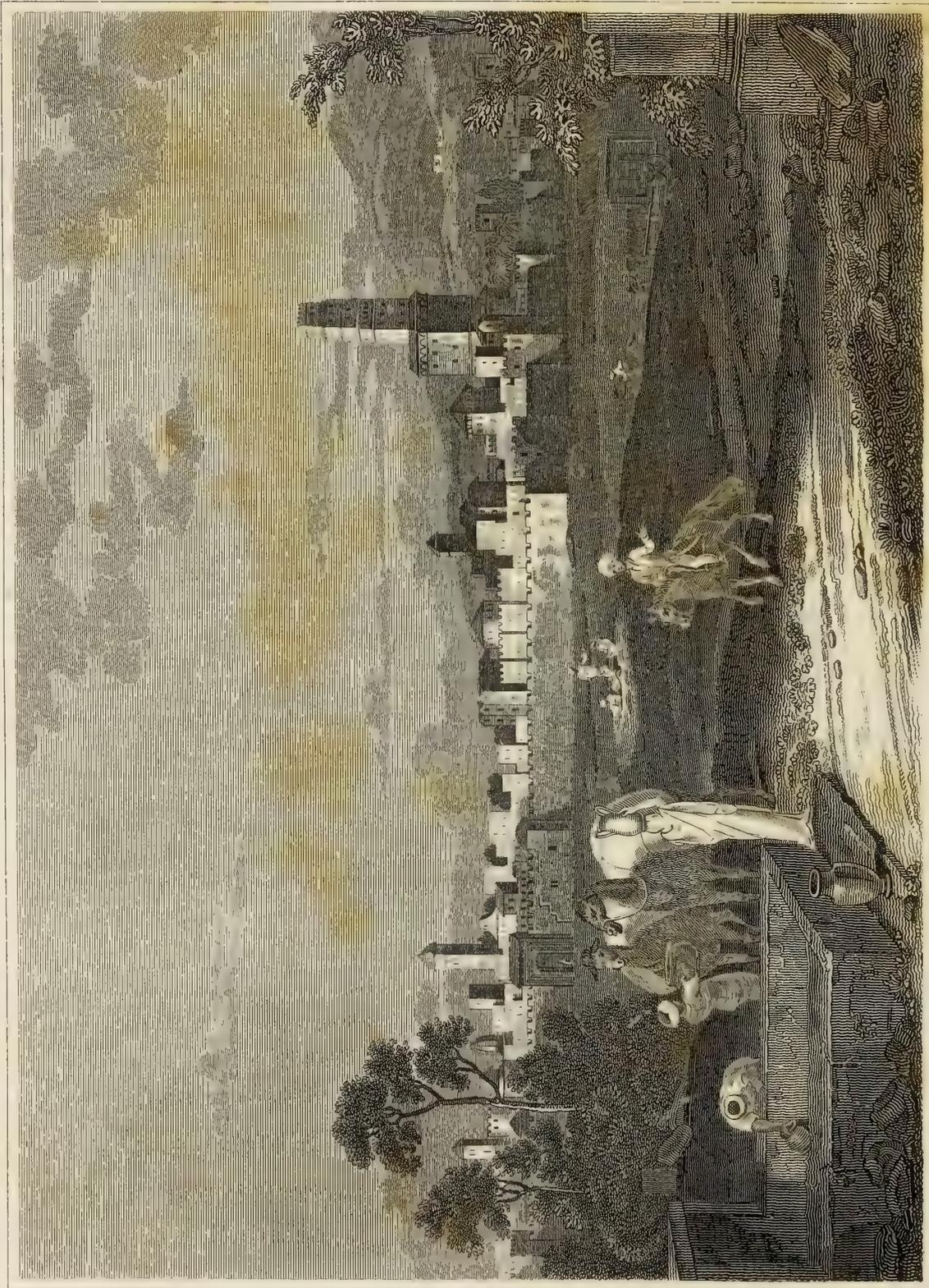
^g Kairoan, Kairwan.

^h Flora Atlantica, preface, p. 2.

ⁱ 8 Fr. leagues.

^k Flora Atlantica, preface, p. 2.





J. P. ...

...

...

it;^a and Constantina, which is the most easterly, and continuous with Tunis.

The country of Zab, in the south, inhabited by nomadic Arabs or Berbers, yields a very doubtful obedience to the authority of Algiers, the southern limits of which are uncertain, and lost in the desert.

The city of Algiers, which contains a population of 80,000 souls, rises in the form of an amphitheatre at the extremity of a fortified anchoring ground, which, however, is not safe in a north wind. The numerous and handsome country seats scattered over an amphitheatre of hills, among groves of olive, citron, and banana trees, present a rural and peaceful landscape, very dissimilar in character to a nation of pirates.^b In the province of Algiers the city of Shersel, the ancient Cesarea, exhibits its ruins at the foot of a mountain covered with orchards. On the coast of the province of Mascara, we find Mostagan, a large town; Arseoo, a port from which grain is exported; and Oran, a fortress long occupied by the Spaniards, who restored it to the Algerines, reserving to themselves the fort of Mars-al-kibir, so situated as to command a large and good anchorage. Telemesen is the chief city of the interior, although the governing bey has established his residence at Mascara, a fortified place. At Telemesen there are some woollen manufactures. Among the nomade tribes of this province, the Beni-Ammer had in a great measure adopted the language and manners of the Spaniards of Oran. In the province of Titeri is the town of Bleeda, occupying a cheerful situation. It also contains some independent tribes. The province of Constantina, governed by a very powerful bey, almost forms an independent state. On the coast we have the town of Boogia,^c with a good harbour, where the mountaineers sell ship timber, figs, and oil; Coolloo,^d which exports cow-hides; Bona, in a country so rich in olives, lemons, jujubes, figs, and other fruit, that they are suffered to rot on the trees; and, lastly, La Calle, lately the station of a French commercial company, the chief object of which was the coral fishery. The interior contains the towns of Tubnah, Messila, Medrashem, with the tomb of Syphax. There is also Tifseh, a place fortified to cover the frontier on the side of Tunis, and the capital Constantina, containing nearly 100,000 souls, and adorned with many fine remains of Roman architecture. A short way from this city, the petrifying springs, called the enchanted baths, form small pyramids by the deposition of calcareous earth with which their waters are impregnated. The Cocos and Beni-Abbes, in the vicinity of Boogia, and the Henneishas, on the Tunisian frontier, and on the banks of the Mejerda, are powerful tribes of Kabyls, who yield to the Bey of Constantina an obedience equally precarious with that which he yields to the Dey of Algiers. In the mountains of Aures, the romantic traveller, Mr. Bruce, says he met with a tribe distinguished by a white complexion and red hair, whom he believed to be a remnant of the Vandals.^e They mark their foreheads with a Greek cross.

The country of Zab, watered by the river El-Djiddid,^f which loses itself in a marsh, supports with much difficulty its inhabitants, who are called Biscaris. It is a desert, containing some scattered groves of date trees. The coun-

tries of Wadreag and Guargala in the south, and of Sobair and Tegorarin in the west, seem to belong to independent Berbers.

In Algiers there are about 14, or 16,000 Turks. The remainder of the population consists of Coloris, or Kulogloos, Jews, Moors, Kabyls or Berbers, Arabian shepherds, negro slaves, and Christians, part of whom, till lately, were in a state of slavery, part free. The Coloris, or Kulogloos, are the posterity of Turks, by Moorish and negro women. They hold a middle rank between the Moors and Turks. They occupy some offices, but not the highest; many of them are very rich. They differ little from the Turks in figure, and a mutual jealousy subsists between these two classes. The government is both despotic and aristocratic. The army which is composed of Turks, chooses the Dey, or Sovereign, whose arbitrary power seems to be mitigated by the principal officers composing the Divan, the members of which are chosen from the oldest warriors. The army consists of about 6500 Turks; but during war, and when the Coloris are armed, the city of Algiers can send 16,000 men into the field. The revenues raised in the three provinces, from taxes on the Jews and Christians of Algiers, from the government monopoly of grain, the sale and ransom of prisoners, and confiscations, amount to a million and nine thousand Algerine piastres. The sciences and arts here are in a most deplorable state. The Algerines are even indifferently skilled in ship-building, and their compass is only marked with eight points. The chase is with them an important occupation. In autumn, and in winter, fifty or sixty persons join together to hunt the lion, the leopard, and other ferocious animals.

The empire of Morocco is a remnant of the great African monarchies, founded by the Arabs. The dynasty of the Aglabites, whose capital at one time was Kairooan, and more lately Tunis, and that of the Edrisites, which resided at Fez, were subjugated by the Fatimites, who afterwards being occupied with the conquest of Egypt, allowed their western possessions to be usurped by the Zeirites, who were succeeded by the Hamadians and the Abuhafsians in the provinces of Tunis and Constantina. But in the western extremity, a prince^g of the Lemtunaas, a tribe belonging to the Great Desert, at present unknown, chose for the reformer of his people, their legislator and high priest, Abdallah-Ben-Iasin, an extraordinary person, who lived on water, game, and fish, but who married and divorced many women every month. This artful fanatic created a sect marked in the first instance by furious zeal, and always extremely ambitious and enterprising, called the Almoravides, or more properly Morabeth. It issued from the desert like a fiery hurricane, threatening by turns Africa and Europe. The chief of these conquering zealots took the title of *Emir-al-Mumenim*, or Prince of the Faithful. In 1052, Abutasfin built the city of Morocco, or Merakash. Joosooph^h invaded and subjugated the finest part of Spain. At the same time the religious and political rule of the Morabeths extended over Algiers, the Great Desert, Tombuctoo, and other towns of Soodan; but new sectaries of a more austere character, the Mooa-

^a Titeri includes Algiers, the state or kingdom being divided into only three provinces.—*Ed. Encyc.*

^b Hebenstreit, in Bernouilli, *Collect. des Voyages*, IX. p. 323.

^c Bujeya, Bugia.

^d Il Cullu.

^e Bruce's Travels.

^f Wadi-Jiddi.

^g Abubeker Ben Omar, Abutasfin, or Texofien.

^h Jussuf, Yusef, or Joseph.

hedes or Almohads,^a that is, the Unitarians, conquered in 1146 the great empire of Mogreb, or the west. Though less fortunate in Spain, they extended their power in Africa as far as Tripoli. Their princes took the title of Emir-al-Mumenim, and even that of Caliph. After the lapse of a century, intestine discords laid the Almohads open to the successful attacks of several rivals, among whom were the Merinites, who took possession of the kingdoms of Fez and Morocco. This dynasty more bent on retaining than on extending its possessions, made no effort to re-establish the great empire of Mogreb. In 1547, a Sherif, or descendant of Mahomet, put a period to the power of the Merinites. His posterity still reigns, after having weathered frequent revolutions. The sovereigns of Morocco conjoin the title of Sherif with that of Sultan.

The State of which we have now traced the origin, still embraces a territory of 500 or 550 miles^b in length, and 420° in breadth, almost as large as Spain, even when we confine ourselves to the cultivated parts of the provinces of Segelmessa,^d Tafilet, and Darah, situated to the S. and E. of Mount Atlas. All travellers join in praising the fertility of the kingdoms of Fez and Morocco, the one of which is situated to the north and the other to the west of the Atlas. This fertility, however, seems to be confined to those parts in which sufficient supplies of water cooperate with the goodness of the soil, and the heat of the climate. Though the inhabitants almost entirely neglect cultivation, fruit and grain are produced, not only in quantities sufficient for the wants of the people, but also for exportation. Morocco supplies a part of Spain with these necessaries of life. The principal grain is wheat. Barley is also abundant. It comes into ear in the month of March. Oats grow spontaneously. The olive in its best state, the citron, the orange, and the cotton tree, cover the hills. In the sandy plains, the Moors, by dint of irrigation, rear a variety of pulse, melons, and cucumbers. Many varieties of the vine succeed in the northern provinces. The forests are full of oaks with sweet acorns, cork trees, cedars, arbutuses and gum trees. The minerals are neglected; copper, tin, and antimony, are found; but they are only worked superficially.^e The climate, excepting for three months in summer, is very pleasant, but the dreadful hot wind of the desert prevails for fifteen days, or three weeks before the rainy season, which commences in September. During this season the rains are not constant. Much snow falls in the valleys of Mount Atlas.

The rivers are shallow, and generally have a bar at their mouth which prevents the entrance of large vessels. The largest rivers are the Mullaia which flows into the Mediterranean; the Subu, the Morbeia, or Ommirabee, and the Tensif, which fall into the Atlantic.

Without bewildering ourselves in the labyrinth of the topography of the provinces, we shall take notice of the principal cities. Fez, the capital of the kingdom of that name, is conspicuous among the African cities for its ancient literary renown. The passion for study, however, is now nearly extinct. It has preserved some manufactures of silk, wool, and red morocco; it has an active trade, and is said to contain a population of 30, or according to others 70,000 souls. Mequinez, in the plain to the west of Fez,

has, on account of its salubrious climate, been frequently selected as a place of residence for the Sultan. On the coast of the Mediterranean, the fortresses of Melilla, of Pennon-de-Velez, and of Ceuta, possessions of little use to Spain, are memorials of the attempts which the Christians have made to invade, in their turn, the territories of Islamism. In Tetuan, a town of 20,000 souls, the houses are generally two stories high, and good, but the streets are extremely narrow and gloomy. Their mode of building is to make a large wooden case for the wall, or for a part of it, into which they put the mortar, and when it is dry the case is removed. The roofs are flat, and the women, who live in the higher apartments, walk along them in paying their mutual visits. The women are so handsome, and at the same time so susceptible, that Mussulman jealousy has been obliged to prohibit Europeans from settling in it.^f Tangier, or Tandja, a town pleasantly situated on the Straits, has become the residence of most of the European consuls. Passing Cape Spartel, we find on the shore of the Atlantic Ocean, the large town of Larash, or El-Araish, at the mouth of the river Luccos, which here forms a port: Mamora on the south side of a number of large lakes, and Saleh,^g formerly a sort of piratical republic, now a commercial town, the residence of the French consul, and separated by the river Buragrag from the town of Rabat, or New Saleh. At Azamore on the Morbeia, the kingdom of Fez ends, and that of Morocco begins.

The capital of this kingdom, and the ordinary residence of the Sultan, is properly called Merakash. It contains, according to the best authorities, from 20, to 30,000 inhabitants, silk, paper, and red morocco manufactures, an extensive palace with some of its rooms richly furnished, large magazines of grain, built under the direction of a Danish architect,^h and numerous mosques, one of which had minarets, surmounted with four golden globes, which were said to be enchanted, but which a Sherif had courage enough to order to be removed.ⁱ On the coast we find Mazagan, a Portuguese fortress, which was unsuccessfully besieged by 200,000 Moors.—Valadia, the best situation for a harbour on this coast, where rapid currents and violent squalls render a place of shelter a most valuable object to the seaman:—Safi, or Asafi, a small town at the foot of Mount Atlas:—Mogadore, the great emporium of the whole empire, regularly built, on plans given by a French engineer, well fortified, and provided with a harbour, which, however, like all the rest on this coast, is filling with sand.—Next comes Agadir; and lastly, Santa Cruz, the most southerly port of Morocco, situated in the province of Sus, the capital of which is Tarodant, a large inland town, and a military station for resisting the depredations of the nomades.

The cities of Tafilet, and Segelmessa, to the south-east of Mount Atlas, though now little known, were once very flourishing places. The caravans bound to Soodan and Egypt, seem still to join at these places, or both at least pass through them. According to Jackson, Tafilet possesses excellent woollen manufactures.

The writer just mentioned, who officiated as British consul at Mogadore, has given an opinion on the population of Morocco, very different from what is entertained by the

^a Almohedes.

^b 180 to 200 Fr. leagues.

^c 150 Fr. leagues.

^d "Sedjelmessa," Sijilmassa.

^e Jackson's Account of Morocco. Hæst, Relation du Maroc.

^f Agrell, Lettres sur le Maroc.

^g Sallee.

^h Hæst, p. 76—78, &c.

ⁱ Saint-Olon, quoted by Bruyzen La Martinière, under the article Maroc.

greater part of travellers, who represent this country as extremely depopulated, containing not more than five or six millions of inhabitants.^a This author says he has collected particular information on the subject; but he does not always mention the precise sources from which it is derived. He professes to have seen the imperial registers, in which the names of all taxable persons are inscribed; but he does not say how these registers are kept, and what evidence we have of their correctness. The following are the numbers which he assigns;

	Inhabitants
Cities and towns of the Empire	936,000
Kingdoms of Morocco and Fez, to the west of Mount Atlas	10,300,000
Nomade tribes to the north of the Atlas	3,000,000
Tafilet, a kingdom to the east of the Atlas	650,000

Total population of the Empire 14,886,000

As the whole surface of the Morocco states is 359,380 square miles,^b the population would average forty-two inhabitants to the square mile;^d but it consists of two very different countries; that which lies to the west and the north of the Atlas, and that which lies to the east and the south. As the latter, which gradually passes into the desert, would only contain 700,000 persons on a surface of 134,225 square miles,^e making five or six to each square mile,^f the maritime part, or the kingdoms of Fez and Morocco, would contain, on a surface of 201,544 square miles,^g more than fourteen millions of inhabitants, which would make the relative population amount to seventy per square mile;^h a proportion perhaps equal to what exists in Spain or Turkey, and which it is not easy to admit without further inquiring into a country so much exposed to intestine troubles, so ill governed, and so destitute of the means of civilization. Mr. Jackson makes the city of Morocco to contain 270,000 inhabitants, and Fez 380,000, assertions too extravagant to require discussion. Travellers of excellent character give the first of these cities no more than 30,000, and the other 70,000, and yet seem to think it possible that they exaggerate them.ⁱ

The subjects of this empire are slaves to an absolute despot, and strangers to the benefits of fixed laws, their only rule being the will of the emperor. Wherever this prince fixes his residence he distributes justice in person; for this purpose he generally holds a court twice, and sometimes four times in the week, in a hall of audience called *M'shoire*.^k Here all complaints are addressed to him; every person has access; the emperor hears each individual, foreigners or natives, man or woman, rich or poor. Distinctions of rank have no influence, every person being entitled, without hindrance or embarrassment, to approach the common sovereign. Sentence is promptly pronounced, always with absolute and ultimate decision, and for the most part with justice.

With the exception of these imperial audiences, the administration under this government is a tissue of disorder, rapine, and violence. The governors of provinces have the title of *kalif* or lieutenant, and that of *pasha*, or of *kaid*;^l and combine the executive with the judicial power. They only remit to the judges some complicated causes.

^a Chenier, Lempriere, &c. &c. See Bruns, Afrika, VI. p. 60.

^b Gatterer's Geography, p. 123. (German.)

^c 46,777 sq. Fr. leagues, (25 to an equatorial degree.)

^d 325 to a sq. league.

^e 17,500 sq. Fr. leagues.

^f 40 to a sq. league.

^g 26,277 sq. Fr. leagues.

^h 523 to a sq. league.

In some of the towns, such as Fez, there are *kadis*, or independent judges, who are invested with great powers. Oppressed and harassed by the sovereign and the courtiers, all these governors and judges oppress the people in their turn. The lowest officer pillages legally in his master's name. The wealth thus acquired falls in the end into the coffers of the sultan, who, under some pretext or other, causes those who have amassed treasures to be dismissed from office, accused, and condemned. The sovereign can deprive a subject of every thing belonging to him except what is strictly necessary to save him from starvation. The confiscated sums are said to pass into the common treasure of the Mussulmans; this is all the account of them that is given. The consequences of such a system may be easily conceived. The people, suspicious, cruel, and perfidious, respect no sort of obligations. Their universal aim is to pillage one another; no confidence, no social tie exists among them, and scarcely even any momentary feelings of affection. The father dreads the son, and the son detests the father.

The different religions which maintain the unity of Goa are tolerated. There are Roman Catholic monasteries at Morocco, at Mogadore, at Mequinez, and Tangier; but the Romish monks at Morocco and at Mequinez are closely watched and exposed to vexations.^m The Jews, who are exceedingly numerous, and extend even among the valleys of the Atlas, are treated with the most revolting barbarity. Their situation, civil and moral, in this country, is a most singular phenomenon. On the one hand, their industry, their address, and their intelligence, make them masters of all the trade and manufactures. They direct the royal coinage; they levy the duties on exports and imports; and officiate as interpreters and men of business.ⁿ On the other hand, they experience the most odious vexations and the most dreadful usage. They are prohibited from writing in Arabic, or even learning the characters, because for them to read the Koran would be a profanation.^o Their women are prohibited from wearing any green article of clothing, and are only allowed to veil one half of the face. A Moor enters the Jewish synagogues without ceremony, and even abuses and insults the rabbins. In passing a mosque, the Jews must uncover their feet and take off their slippers at a respectful distance. They dare not be seen on horseback, or sit cross-legged before Moors of a certain rank. They are often assailed by the lowest blackguards in the public walks, who cover them over with mud, spit in their faces, or knock them down; they are obliged to ask pardon, and call the person *sidi*, or 'sir,' who, the moment before, most outrageously maltreated them.^p Should a Jew, under any provocation, raise his hand to strike a Moor, he runs the risk of being capitally condemned. When employed to work for the court, the Jews receive no pay, and think themselves happy, if they are not beaten. A certain prince *Ishem* ordered a dress from a Jewish tailor; the dress when it came did not exactly fit him; the prince proposed to kill the Jew on the spot; the governor of the city interceded for him, and he got off with having his beard pulled out hair by hair.^q At Tan-

ⁱ Hæst, p. 78 and 84.

^k Chenier writes it Meschouar; Hæst, Moschouar.

^l Hæst, p. 184. Jackson.

^m Hæst, p. 161. Lempriere, p. 108.

ⁿ Hæst, Relat. p. 144. Lempriere, p. 102—168.

^o Agrell, p. 263. Hæst, p. 145.

^p Hæst, p. 143. 209.

^q Agrell, p. 89.

gier, an order of government once appeared in the middle of winter, that every Jew should go bare-footed, under the penalty of being *hung up by the feet*. To crown all, they are frequently condemned in Morocco to be thrown, like Daniel, into a den of lions; but, as the keepers of the lions are themselves Jews, it is rarely that any deadly consequences ensue. The keepers use the precaution to feed the lions abundantly, and not to leave their countrymen exposed to them longer than a single night.^a

The Moors entertain the loftiest ideas of themselves and their country. These half-naked slaves style the Europeans *agein*, or barbarians. They are not altogether destitute of virtues. A Moor never abandons himself to despair; neither sufferings nor losses can extort from him a single murmur; to every event he submits as decreed by the will of God; and habitually hopes for better times. The Moors admit of no distinctions founded on birth; nothing except public office confers rank. Among the points of etiquette which prevail at the court of the princes of Morocco, a very singular one is quoted by the author whom we follow. The word *death* is never uttered in presence of the sultan. When it is unavoidable to mention to the sovereign the death of any person, it is expressed by such words as, "He has fulfilled his destiny," on which the monarch gravely remarks, "God be merciful to him." Another point of whimsical superstition is, that the numbers *five* and *fifteen* must not be mentioned in presence of the prince.^b

Mr. Hæst estimates the revenues at a million of piastres, the chief sources of which are the customs and the tithes. The sultan generally amasses treasure. The army, composed of 24,000 negroes and 12,000 Moors, is ignorant of discipline and manœuvring. The navy consists entirely of corsairs, which are sometimes fifty in number. It is only by the position of their country that these ignorant and cowardly seamen are enabled to inflict inconvenience on Europeans.

Raw produce is all that a country so far behind in civilization can export. The following is a list of its exports, according to the concurring accounts of travellers: wool, wax, (5000 quintals,) ox-hides, morocco leather, ivory, ostrich feathers, poultry, and eggs, (to the amount of two millions of francs, or 83,333*l.* by the ports of Larash and Tangier alone, according to Lempriere,) cattle for Portugal, mules for the West Indies, gum-arabic of indifferent quality, crude copper, almonds, argan oil,^c used in the manufacture of Marseilles soap; various fruits, and wheat when the exportation of it is allowed. The imports are cloths, hardware, Biscayan iron, spiceries, and tea; also ship-timber, which is not to be had on the coast, though probably it would be found on Mount Atlas if pains were taken to inquire for it. In 1804 the exports from the port of Mogadore did not exceed 128,000*l.* sterling, duties included, and the imports amounted to 150,000*l.* The most active part of the trade of the Moroccans seems to be that which they carry on with Tombuctoo, by means of a caravan which goes from Akka in the province of Darah.

Now that we have taken our survey of the whole of Bar-

bary, from the confines of Egypt to the shores of the Atlantic Ocean, the old routine of geographers should bring us to Biledulgerid; but there is in reality no such geographical division. The name of *Belad-el-Djerid*, or "the Land of Dates," falls under the same description with those of *Belad-el-Folfol*, "the Pepper Country," and *Belad-el-Tibr*, "the Land of Gold." Such appellations cannot apply to a country of definite limits. The Arabs gave the name of the "Land of Dates" to all the countries situated on the southern declivity of the Atlas, as far as the Great Desert. This stripe extends from the Atlantic Ocean to Egypt. It includes Darah, Tafilet, Segelmessa, Tegerarin, Zab, Guargala, the country of Totser, Gadames, Fezzan Audjelah, and Siwah.^d All these districts have been already mentioned in their proper places: the country of Totser, which belongs to Tunis, and to which Shaw and some others give the special name of *Belad-el-Djerid*, is properly the *Kastiliah* of the Arabian geographers.^e Other travellers, with no less impropriety, give the name of *Biledulgerid* to the province of Darah in the south part of Morocco.

The Great Desert, called in Arabic *Zahara*, extends in the ordinary acceptation of the term, from Egypt and Nubia to the Atlantic Ocean, and from the foot of Mount Atlas to the banks of the Niger. But, as Fezzan and Agadez, at least according to the latest notions, separate the deserts of Bilma and of Berdoa from the rest of the *Zahara*, we shall not at this place take them under our view. The great desert of the north-west of Africa seems to be a table-land little raised above the level of the sea, covered with moving sands, and here and there containing some rocky heights and some valleys where the water collects and nourishes some thorny shrubs, ferns, and grass.^f The mountains along the shore of the Atlantic Ocean are in no continued chain, but only in detached peaks. Towards the interior they lose themselves in a plain covered with white and sharp pebbles. The sand hills, being frequently moved by the wind, lie in undulating lines like the surface of an agitated sea. At Tegazza, and some other places, a sal-gem whiter than the purest marble, lies in extensive strata under a bed of rock.^g No other mineral substance belonging to this desert is mentioned by authors; but, on its southern margin, Golberry found masses of native iron, his confused description of which excites our curiosity without giving any satisfactory information. For a great part of the year the dry and heated air has the appearance of a reddish vapour, and the horizon looks like the fire of a series of volcanoes.^h The rain, which falls from July to October,ⁱ does not extend its precarious and momentary blessings to every district. An aromatic plant resembling thyme, the plant which bears the grains of *Zahara*, acacias, and other thorny shrubs, nettles, and brambles, constitute the ordinary vegetation of the desert. It is rarely that a grove of date trees, or other palms, is to be seen. The forests of gum trees, (the *Mimosa Senegal* of Linnæus) situated on the extreme border of the desert, seem to be detachments derived from the vegetation of Senegambia. Some monkeys, and some gazelles, support

^a Hæst, p. 290.

^b Hæst, p. 222. Agrell, p. 296.

^c The argan tree bears a fruit resembling the walnut, yielding an excellent oil.—P.

^d Leo Africanus, p. 625, edit. Elz.

^e Abulfeda, Africa, p. 25. Timimi, quoted in Edrisi, Hartmann's edit. p. 257. Paulus, Memorabil. III. p. 139.

^f Marmol, Afrique, III. p. 41. Leo, Elzevir edit. p. 67.

^g Leo, p. 633. ^h Brisson, Voyage, p. 24. 35, 36. (German edit.)

ⁱ Follie, Voyage, p. 63, tr. Allem. Brisson, p. 45. 161

themselves on this scanty vegetation. The ostrich also lives here in numerous flocks, feeding on lizards and snails, together with some coarse plants, such as *apocynums*.^a Lions, panthers, and serpents, sometimes of enormous dimensions, add to the horrors of these frightful solitudes. Ravens, and various other birds, dispute with the Moorish dogs the dead bodies of men and quadrupeds. These animals live here almost without drinking. The flocks consist of camels, goats, and sheep. The horses, which are very rare, sometimes receive milk to allay their thirst, for want of water.^b

The coast of Zahara contains some harbours and roadsteads. Those of Rio-do-Ouro, and of St. Cyprian, are formed by large creeks, resembling the mouth of rivers. The Gulf of Arguin, and the Portendik road, have often been visited by Europeans. On the same line of coast are Cape Bojador, the terror of the navigators of the middle age, and, down to 1433, the fatal limit of all sea voyages in this direction, and Cape Blanco, which, according to the most probable opinion, was the limit of the discoveries of the Carthaginians.

The people called Mooselmins, live to the north of Cape Bojador. Their territories are intermediate between Morocco and the desert. These people are composed of a mixture of the descendants of Arabs and fugitive Moors from Morocco. Their lands are not destitute of fertility, and the limits between them and the desert are indicated by a series of lofty pillars. Their life is intermediate between the pastoral and the agricultural state. Their corn is, in harvest, deposited in large holes dug in the sand, in which the different individuals have shares proportioned to the number of labourers whom they have employed. They remain by their fields in seed-time and harvest, but wander in all directions with their cattle during the rest of the year, taking with them only necessary articles, and returning to their stores from time to time for a supply. The more opulent among them, and the artizans, reside in towns. The former are proprietors of cattle, which are abroad in the country under the care of their slaves. Gratuitous hospitality is habitually practised in the country, but not in the towns. Their government is republican, and their chiefs elected annually. Their country is populous, though their numbers are in some measure kept down by frequent warfare with the emperor of Morocco. These people are better clothed and more prosperous than the Moroccans. They are almost continually on horseback. They excel in breaking and managing their horses, which are the best in the world, and are skilful riders. The Mongearts live between Cape Bojador and Cape Blanco. On the heights along this dangerous coast, they generally make signals to the ships at sea, in order to allure them to their inevitable ruin. These ferocious Africans instantly take possession both of the goods and crews. The Wadelims and the Labdessebas, who live near Cape Blanco, are described as monsters of cruelty, by a Frenchman who had the misfortune to suffer shipwreck on their coasts. The fate of the prisoners is truly lamentable. The Moors, in conveying them to the heart of the desert, make them walk, like themselves, fifty miles per day, giving them in the evening only a little barley meal, mixed with water, the common food of

these nomades. The soles of the feet in the European swell dreadfully from the heat of the burning sand, in which the Arab travels without inconvenience. The master soon perceives how ill qualified his slave is for the travels and toils of this sort of life, and therefore endeavours to get rid of him. After dragging him from one market to another, he generally meets with one of the Jewish travellers who are settled at Wadi-Noon, and cross the desert with their merchandize. The Jew purchases the prisoner for a little tobacco, salt, and clothes. He afterwards writes to the agent of the European nation to which the prisoner belongs, and endeavours to obtain for his liberty as high a ransom as he can.^c

The gum forests between Cape Blanco and the Senegal, are in the possession of three tribes, called Trarsas, Aulad-el-Hadgi, and Ebraquana. All the three are of Arabian origin, and speak their mother tongue: they are Mahometans, and live in camps, without any fixed houses.

The territory of the Trarsas^d is bounded on the west by the ocean, and on the south by the Senegal. Their capital, if we can be allowed to use the term, is in an oâsis, the name of which is believed to be Hoden. To this place they seem to retire during the rainy season; but they anxiously conceal the place of their retreat, which they call their country. We are only permitted to know that these oâses are situated between the 18th and the 22d degree of north latitude, and between the ocean and the 7th degree of longitude, (reckoning from the island of Ferro.)^e The territory of the Brachnas, or the Ebraquana, and of the Aulad-el-Hadgi, is bounded on the west by the Trarsas, on the south by the Senegal, on the east by Ludamar. On the north they have the same sort of boundaries as the rest.^f

Portendik, on the coast, is the port where the trade with the Trarsas is carried on. Podor, on the Senegal, is the resort of the more easterly tribes.

These Moors or Arabs, are in general a base and perfidious people, although individuals have been found among them distinguished for courage and other virtues. Cruel whenever they are possessed of power,—treacherous and faithless, they are strangers to every sentiment of generosity or humanity. Their wild aspect corresponds to their barbarous manners. Even in their copper complexion, containing a mixture of red and black, there seems to be something that indicates badness of character.

Golberry, who has drawn this picture, saw their women in a more agreeable light, at least during youth. According to him, they are handsome at that happy age; their features are fine, mild, and regular; their colour inclines to a pale yellow, but fairer and clearer than that of the men. They live in tents; men, women, children, horses, camels, and other animals, being crowded promiscuously under the same cover. The camps, which they form on the banks of the river, are composed of the better sort of tribes. They live on millet, maize, dates, and gum; and their sobriety and abstemiousness are almost inconceivable. The greater part of their fruits are furnished by the oâses: the date-palms, above all, grow there in the greatest abundance. They have cattle with humps on the back, and

^a Cadamosto in Sprengel, Beytræge, XI. p. 112. Shaw, p. 453. Poiret, I. p. 280.

^b Brisson, p. 161. Follie, p. 63. Compare with Leo, p. 43.

^c Jackson's Account of Morocco. Brisson and Follie.

VOL. II.—NOS. 63 & 64.

^d Trarsarts.

^e 11° 10' W. from Greenwich.

^f "Their boundaries are as indefinite as those of the others," i. e. they extend to an uncertain distance into the Great Desert.—P.

excellent horses, whose rapid pace equals the speed of the ostrich.

Our arts and trades are not altogether unknown to these barbarous people: they even practise some of them with skill. They have weavers who, with the simplest portable looms, make stuffs out of the hair of animals, especially the camel and the goat. They have even the secret of manufacturing morocco leather. They know how to apply to purposes of utility the skins of lions, leopards, panthers, and hippopotami. They reduce lamb's skins to the thinness of paper, then dye them with different colours, and fashion them into ornaments. They form stirrups and bridle-bits of single pieces of metal, as well as sabres and poniards; inrust and damaskene the handles of the latter, and adorn the scabbards with plates of gold and silver. They have their itinerant goldsmiths and jewellers, who make bracelets, chains, gold-rings, filligrees, and arabesque ornaments, by which they compose, with no small skill and taste, pieces of ornamental dress for ladies and royal personages.

Farther to the east, we know the tribes of the desert only by the Moroccan caravan, or *akkabah*, which travels every year to Tombuctoo. The *akkabahs* do not proceed in a straight line across the immense desert of Zahara, which offers no trace of a beaten road, but turn sometimes westward, sometimes eastward, according to the position of the different oases. These verdant lands, scattered over this vast desert, like islands in the ocean, serve as places of rest and refreshment to the men and animals. So violent is the burning wind, called the samoom or shoom,^a that the scorching heat often dries up the water contained in the leathern bottles which the camels carry for the use of the merchants and the drivers. There was a monument here which, in the time of Leo Africanus, attested the deplorable fate of a driver and a merchant, the one of whom sold his last cup of water to the other for ten drachms of gold. Both had perished. In 1805, an *akkabah* consisting of 2000 persons, and 1800 camels, not finding water at the usual resting-places, died of thirst, both men and animals. The vehemence of the burning wind, which in these vast plains raises and rolls before it the waves of reddish sand, makes the desert so much to resemble a stormy sea, that the Arabs have given it the name of "dry sea," (*Bahar billâ mâa.*)^b Possessing some knowledge of the positions of the stars, they use the polar star for direction, and so prefer travelling during the clear nights of these climates, rather than brave during the day the intense heats of a burning sun.

The *Akkabahs* of Morocco take about 130 days to cross the desert, including the time occupied in resting at the different oases, or places of refreshment. Leaving the city of Fez, and proceeding at a rate of three miles and a half per hour, they travel seven hours each day, and arrive in ten days at Wadi-Noon, Akka, or Tatta; there they stop a month for the arrival of the other caravans which are to join them; sixteen more days are then occupied in travelling from Akka to Tarassa, where they rest fifteen days. They then proceed to Arooan, another station at the distance of seven days' journey, where they also rest 15 days. They then set out for Tombuctoo, where they

arrive on the sixth day, after a journey of 129 days, being fifty-four of travelling, and seventy-five of rest.^c Another caravan which leaves Wadi-Noon and Sol-Assa, crosses the desert between the black mountains of Cape Bojador and Gualata, goes to the western Tarassa, (probably the country of the Trasarts,) where it stops to procure salt, and arrives at Tombuctoo after a journey of five or six months. This *akkabah* goes as far as Jibbel-el-Bud, or the white mountains near Cape Blanco, and crosses the desert of Magaffra, to the district of Agadir, where it rests twenty days. These caravans obtain an escort from each tribe through whose territories they pass. Thus, in crossing those of Woled-Abuseid, they are accompanied by a great number of soldiers, and two sebayers or chiefs of clans, who, after conducting them to the territory of Woled-Deleim, receive their remuneration, and commit the *akkabah* into the hands of the chiefs of this district: these escort them to the territory of the tribe of Magaffra, where other guides convoy them to Tombuctoo. Sometimes a caravan, bolder or more hurried than the rest, attempts to cross the desert without an escort; but they seldom fail to repent of their temerity, by falling into the hands of the two tribes of Dikna and Emjot, which inhabit the northern frontiers of the desert.

Being subject to a religious code which forbids the use of inebriating liquors, the merchants of the caravans know no other drink than water; dates and barley meal serve them for food during a journey of many weeks across the desert. Their clothing is equally simple. Fortified by this frugality, and sustained by the prospect of returning to their homes, they sing as they trudge along, to shorten the long hours of travel. When they come near any dwellings, or when their camels seem in danger of dropping down with fatigue, their songs acquire additional spirit and expression; their melody and sweetness restore animation to the toiling camels. At four in the evening they pitch their tents, and join in prayer; to this act of devotion supper succeeds; then they sit down in a ring, and converse or recite stories till their eyes are closed in sleep. The Arabic language becomes extremely agreeable in the mouths of the camel drivers; it is then equally soft, and more sonorous than the Italian; their particular dialect resembles the ancient language of the Alcoran, which for 1200 years has scarcely undergone any alteration. The Arabs of Magaffra, and those of Woled-Abusebah, compose extempore verses with great readiness; the women are good judges of poetry, and show particular favour for those young Arabs who excel in this literary exercise.

We do not know the precise situation of the deserts of Zuenziga and Targa, mentioned by Leo: they must be to the north of the oasis of Tuat. The Lemtuna^d of this writer seem to form part of the Tuariks of the moderns. Agadez, a large town inhabited by slave-merchants, and situated to the south of Tezzane, is also known by the name of Tuarik,^e probably as being the chief settlement of that people.

May not the great desert which we have now described be the dried basin of a sea? Diodorus speaks of a lake of the Hesperides, which was turned into dry land by an earthquake; perhaps the countries of Mount Atlas, once

^a "Samum or shume."

^b "Sea without water."

^c The sum given here does not correspond with the details. The

entire sum, derived from them, is only 99 or 100 days, of which only 39 of travelling.—P.

^d See p. 61, origin of the Almoravides.—P.

^e Abderrahman, Nouv. Mus. Allem. III. p. 988.

surrounded by a double Mediterranean, formed that celebrated Atlantic island^a which is sought for in every direction and nowhere found. On the borders of the great desert there are immense collections of the remains of marine animals. Soodan is destitute of salt, but the deserts of

^a Atlantis.

Zahara are covered with it. Pliny and Leo concur in saying, that in several districts, sal-gem was cut like marble or jasper, and used as stones for building houses. These facts seem favourable to the hypothesis now mentioned ; but the level of the desert is unknown ; and such theories do not, in the present state of retrospective geology, admit of any approximation to proof.

BOOK LXVI.

SENEGAMBIA AND GUINEA.

THE region which we are now to visit, affords a remarkable example, both of the beneficence of nature and of the perversity of the human mind. These countries, in which tyranny and ignorance have not had the power to destroy the inexhaustible fecundity of the soil, have, down to the present times, been the theatre of eternal robbery, and one vast market of human blood.

The sea-coasts of this region experience the most intense heat that is known in any part of the globe. The cause of this is to be found in the east winds which arrive on these coasts, after having swept over the burning surface of Africa in all its breadth.^a At Goree, in the years 1787 and 1788, in November and in May, the thermometer stood between 68° and $88\frac{1}{4}^{\circ}$: during the night it did not fall below 60° . From May till November it did not fall below 77° , nor rise above $99\frac{1}{2}^{\circ}$. Thus there are only two seasons; the one may be considered as a moderate summer, the other as a continuation of burning dog-days. But, during the whole year, the sun at mid-day is insupportable. At Senegal the heat is still more intense, amounting to 113° , and sometimes to 131° . The barometer almost always rises in those circumstances under which it falls in France, that is, at the commencement of a storm. The north and north-west winds blow almost without interruption. The east or trade winds are only felt at 90 or 120 miles from the coast. The south wind is very rare. During the great heats a dead calm prevails for about thirty days, which is enervating to the most robust constitutions. From the beginning of June till the middle of October sixteen or eighteen heavy rains fall, amounting to fifty or sixty inches of water. A single one sometimes gives as much as six or seven inches. During the rest of the year there are heavy dews.^b

Of all the countries of western Africa, the Gold Coast seems to be subjected to the most intense heats. Near the Rio Volta, Isert saw the thermometer of Fahrenheit rise to $95\frac{1}{2}^{\circ}$ within an apartment, while it was 134° in the open air, which surpasses by 26 degrees the greatest heat observed by Adanson on the banks of the Senegal.^c

In the Gulf of Guinea the prevailing winds are from the south-west, which makes it difficult for vessels which venture into it to get out. This direction of the wind, being contrary to the trade winds, is to be explained by the rarefaction of the air in the central countries of this part of

Africa, a circumstance from which some infer the absence of high mountains.^d

Between Cape Verga^e and Cape Palmas, the hurricanes, called tornadoes, from a Portuguese term for whirlwinds, are very frequent in summer and autumn; their approach is announced by a small white cloud, apparently five or six feet broad, remaining immoveably in one spot. This soon extends, and covers a great part of the horizon. An impetuous whirling wind now breaks forth, which lasts only about a quarter of an hour: but in this short space, enormous trees are torn up by the roots, houses are thrown down, entire villages destroyed, and vessels driven from their anchors and wrecked. This scourge is unknown on the Senegal, and even from Cape Blanco to Cape de Verga; but it sometimes occurs in the Zahara. The winds raise the impalpable sands, forming them into columns which rise to an immense height, and become a sort of sand spout. After different changes of form, they are either dissipated through the air, or carried along, sometimes to very great distances; sometimes they break through in the middle with a crash like the explosion of a mine.^f The harmattan, the name of which seems to be of European origin, (*air matant*)^g is an east wind which prevails chiefly in Benin, and extends to the Gold Coast; it brings on a dry haze; the horizon is darkened; the skins of animals and men become contracted and chopped. These harmattans are felt about the solstices.^h

Near the sources of the Senegal, the Joliba or Niger, the Gambia, and the Mesurado, there is a nucleus of mountains, from which, according to the most recent maps, branches go off like so many rays, which might lead us to suppose that they are granitic, or schistous mountains, yet the numerous falls in the rivers seem to indicate a surface rising by terraces, and hence probably calcareous. Some of them must be of great elevation, if the reports of the negroes to M. Mollien were correct, that to the south-east of Timbo, and the sources of the great river, some of the mountains "have a white hat."ⁱ

The mountains on the coast, from Cape de Verde to the Gambia, present indications of volcanoes, which, however, are equivocal, as the lavas of which they are said to be composed may be considered as basaltic rocks. The foot of Cape Sierra Leone is encircled with basaltic rocks, called by the English Carpenter's Rocks, and the whole coast has

^a Schotte in Forster and Sprengel, *Recueil des Mémoires pour la Géographie et l'Ethnographie*, 1. p. 55.

^b Adanson, *Voyage au Sénégal*. Wadstrom, sur les Colonies, p. 55, trad. Allem. de M. Zimmermann.

^c And yet it has just been stated that the mercury sometimes rises to 131° at Senegal.—P.

^d This inference is found in the original.—P.

^e 10° N. lat 16° W. long. from Paris.

^f *Philosoph. Trans.* LXX. p. 478. *Mémoire de Schotte*.

^g Supposed to be a Fantee word, pronounced by the natives *harmanta*, and said to signify a cold wind.—*Ed. Encyc.*—P.

^h Atkings' *Voyage*, p. 147.

ⁱ Mollien's *Travels to the Sources of the Senegal and Gambia* edited by Bowditch, p. 292.

the same general appearance. Immense alluvial tracts give to the coast of Senegambia some resemblance to Guiana. The islands to the south of the Gambia are partly inundated, and continually accumulating.

The rivers of this country are very numerous. The Senegal, long confounded with the Niger, rises in the country of Foota-Jallon,^a near Timbo, about 10° N. lat. and has a course, first to the north-east, then to the north-west, then west, more than 800 miles in all, before it reaches the ocean.^b Among the falls of this river, that of the Feloo rock merits most particular attention. For seven months in the year the rock stops the course of the water, but during the other five they rise high enough to flow over the top of the rock. At the mouth of the Senegal there is a bar which prevents the entrance of all vessels that draw more than ten feet of water, though immediately within the bar the river is thirty feet deep. La Barthe observes, that in 1779 the entrance of the bar was eleven miles from the island of St. Louis, though now it is fourteen.^c These variations are of great importance in determining the mooring grounds. They are owing to currents in opposite directions, which, in proportion to their relative strength, deposit the sand in a place from which they afterwards carry it away.^d Similar shiftings take place over the coast in general. The banks of the Senegal become highly picturesque when we ascend 140 miles^e from the sea. Lined with hills and mountains, where tall trees, mixed with handsome shrubs, form verdant arches and amphitheatres, this river would furnish one of the most interesting voyages in the world, were not its charms so essentially impaired by the unwholesomeness of the air, the hideous aspect of the crocodiles, and the bellowing of the hippopotamus. The merchants even avoid it, and prefer going by land.^f While the Senegal is only navigable in the rainy season, the Gambia cannot be navigated except in the dry season. Forty gun frigates can go up thirty-seven miles, and large merchant vessels 180.^g The rains give it an enormous increase of depth, but at the same time, such inordinate rapidity that no vessels can stem the current. This river, though exceedingly deep and wide, has only a course of 610 miles.^h The Rio Grande, no less remarkable both for depth and width at its mouth, which is encompassed with islands, has a course only half as long as that of the Gambia. The Rio Mesurado is remarked for its rapid and rectilinear course, but otherwise little known.ⁱ The rivers of the coast of Guinea seem to take their rise in the Kong mountains, at distances from 300 to 400 miles.^k The Rio Volta, which is the least known, descends in a series of cascades; but the deepest angle of the Gulf of Guinea receives the Formosa, the Calabar, and other broad and deep streams, which form at their termination a delta larger than that of Egypt. We shall afterwards state some reasons for considering these rivers as the mouths of the Niger.

^a Jallon-Kadoo.—M. B.

^b Mollien, p. 152.

^c 4 and 5 French leagues.

^d "They are owing to currents, which alternately move in different directions, and thus successively accumulate and carry away the loose sands."—P.

^e 50 French leagues.

^f Durand, Voyage au Senegal, p. 343. Lamiral, l'Afrique et le peuple Africain.

^g Demanet, Labat, &c.

^h 220 Fr. leagues.

ⁱ Its course is about 300 miles.

^k From 100 to 150 Fr. leagues.

^l Isert, Voyage à la Guinée, p. 110—231.

At the head of the trees of these regions stands that colossus of the vegetable kingdom, the immense baobab, the *Adansonia digitata* of Linnæus. Isert, a learned Dane, observed several species of this genus, though only one has been hitherto botanically determined.¹ Its fruit, surnamed monkey's bread, affords abundant aliment to the negroes, who, at sun-rise, watch religiously the opening of its flowers, which have been closed during the night. The whole of Senegambia and Guinea is adorned with its green elliptic arches. The name of Cape de Verde, is said to have been particularly suggested by the foliage of this tree. The wide trunk becomes hollow within while its diameter is augmenting, and the cavern which it forms is large enough to serve as a temple to the negroes, a hall of assembly to a tribe, or a habitation for several of their families. Its height, however, is very moderate. Mr. Golberry observed one which was twenty-four feet high, by thirty-four in diameter, and 104 in circumference. The forests of these countries, equally close with those of Guiana or Brazil, contain, like them, cocoa-trees, palms, mangroves, bananas or pisangs, tamarinds, papaws, various species of citrons, oranges, pomegranates, and sycamores.^m We also remark the courbaril,ⁿ or locust tree, a species of *Hymenæa*, which yields an agreeable beverage;^o the *Elais Guineensis*, from which oil and a kind of butter are obtained; a pea-tree, a new species of *Robinia*, found on the Gold Coast; a tree resembling the tulip-tree, forming a new genus in the Linnean class *Tetrandria*; and another, improperly called a cedar, which is a new species of *Avicennia*.^p The valuable shea or butter-tree, forms a great part of the riches of the kingdom of Bambook; but that tree, probably a species of *Croton*, belongs more properly to Nigritia.^q A species of tallow-tree, however, according to Rœmer, grows on the coast of Guinea.

It has been said that the nutmeg,^r and the cinnamon-tree,^s grow here spontaneously, though in small number, but the assertion requires to be accompanied with stronger evidence than we as yet have. It seems certain that the *Laurus cassia* grows in the forests. The existence of the coffee-tree^t is quite probable. We know that it grows to the south of Abyssinia, but we are not certain that it is precisely the Arabian species. Among other aromatic plants, Senegambia and Guinea possess a species of pepper, the *Cardamomum majus*, called, from its locality, *malaguette*, also capsicum,^u Spanish pepper, and ginger. Cotton succeeds, and even excels that of Brazil. The indigo of this country is excellent. A great number of valuable gums, which this country furnishes as articles of commerce, are well known, such as gum guaiac, the red astringent gum,^v gum copal, the inspissated juice of euphorbia,^w and dragon's blood, (*Sanguis draconis*.) The courageous and able Wadstrom, a Swede, had brought from Africa fourteen kinds of valuable woods, among which were mahogany and ebony. Several dye-woods are found here.

^m Labat, Nouvelle Description, &c. I. p. 62. II. p. 322. III. p. 12—37, &c. Schott, in Sprengel, I. p. 66, 67. Adanson, Voyage au Sénégal.

ⁿ "Faroubier or Courbari, *Hymenæa courbaril*."

^o Labat, IV. p. 363.

^p Isert, p. 116. 182, &c.

^q Labat, III. p. 345. Ehrmann, Histoire des Voyages, III. p. 72.

Compare Rœmer, Relat. de la côte de Guinée, p. 175.

^r Clarkson, on the Impolicy of the Slave Trade, p. 14.

^s Smith's New Voyage, p. 162. Ehrmann, Histoire des Voyages,

X. p. 40.

^t Wadstrom, Essai sur les Colonies, p. 84.

^u Guinea pepper.

^v Kino.

^w Euphorbium.

Alimentary plants are in great abundance. Two species of *Holcus* are cultivated, the *sorghum* and the *dourra*. There is a third species, called by Isert the *Holcus bicolor*, which is known by the Portuguese name *milho*, or millet, on the Gold Coast, and gives a return of 160 for one. Rice is cultivated in the high lands. Africa has received maize from America; but the sweet potato, which in Fetoo is called *broddi*, seems to be indigenous.^a The other esculent herbaceous plants are the yam, the manioc, or cassava, the large bean produced by the *Dolichos lignosus*, the delicious pine apple, which grows in the most desert places, and lastly, different species of melons and of pumpkins. Orange, banana, and papaw trees, have been introduced by the Portuguese, and grow in abundance and perfection.

Tobacco is found every where in great abundance; that of Senegal is excellent, but that of the Gold Coast is of the most indifferent kind. The negroes are so fond of smoking this plant, that they complain less of hunger than of the want of tobacco. The sugar-cane, though abundant and excellent, serves only to feed the elephants, the hogs, and the buffaloes, who are extremely fond of it.^b The negroes sometimes drink the juice of it. The exuberant abundance of the aloes, balsamines, *Gloriosa superba*, tuberoses, lilies, and amaranths, gives the flora of these countries a look of pomp and magnificence quite astonishing to the European traveller. The most singular feature of the African vegetation is perhaps the height to which the Guinea grass grows. This plant forms immense forests of herbage, from ten to thirteen feet in height, where flocks of elephants and boars wander unseen. The enormous *boa* serpent conceals himself in this gigantic turf. In order to render the air more salubrious, or to prepare for cultivation, the negro frequently sets fire to these savannahs, which shine in long lines during the night, resembling rivers of fire that relieve the gloom for a great way round; by day they cover the horizon with columns of smoke; and the birds of prey follow these conflagrations in flocks, to devour the serpents and lizards which the flames have suffocated. This practice has appeared to some of the learned to furnish the most natural explanation of the "torrents of fire," seen by Hanno, the Carthaginian, in his voyage to the south of *Cerne*.^c

No part of the world produces more numerous flocks of elephants, monkeys, and antelopes, deer, rats, and squirrels. In every part of Africa the elephant lives in a state of nature; he is no where tamed. The ancients justly observed, that the African elephant is smaller and less courageous than the Asiatic; but his tusks are much larger; their substance is harder, and less apt to become yellow, and furnishes almost all the ivory of commerce. The method of catching them, employed by the chiefs, is to assemble the young men and take them out into the woods; at the season when the grass is dry, they set fire to the grass all round the elephants, who, finding themselves unable to escape from the flames, perish in the conflagration, sometimes to the number of twenty or thirty, by which means the ne-

groes procure a large quantity of ivory. The hippopotamus, which lives in fresh water and marshy places, grows to a monstrous size, and is most frequently seen to the south of the river Cassemance. The rhinoceros is scarcely known even in Benin. The lion is less common than the panther and the leopard. The spotted hyæna is frequent in this country, but the common species is most common in the north of Africa. The jackal, however, is more formidable and destructive. The giraffe, which has been seen by Mungo Park and other travellers in Nigritia, sometimes wanders to these coasts.^d

The zebra is met with in droves, and the negroes hunt it for the sake of the skin and the flesh.

The most remarkable species of monkey is the *Simia troglodytes*, called *kimpanzay* in Congo. It is the jocko of Buffon, who has confounded it with the ourang-outang of India. This monkey has less approximation to the human form than the ourang-outang; but perhaps surpasses him in intelligence. They sometimes attack people, especially women who carry any provisions, and beat them with sticks till they let go their burden; when pursued and attacked, they defend themselves by hurling stones and biting; and the females which have young ones to protect, are particularly fierce and courageous in their resistance.^e A recent traveller says that this animal is far from being common.^f The hideous mandril varies according to his age; whence Linnæus has erroneously divided this species into two, (the *Simia maimon* and *mormon*.) According to a learned naturalist, it has not hitherto been found except in Guinea and Congo.^g We likewise meet with the pithecus, the hog-faced baboon,^h the hamadryad, the *Simia leonina* or macaque, the diana,ⁱ the *Simia cephus* or moustac; the Callitriche or green ape (*Simia sabæa*), the white-nose or *Simia petaurista*, and, in short, almost all the tailed apes or guenons,^k of which these regions seem to be in a particular manner the native country. Two remarkable animals, akin to the monkey tribe, have hitherto been found only in Senegambia. These are the *Lemur galago* and the *Lemur minutus*. The poto^l is common in Guinea. The Senegal negroes catch the zibet in a very young state, and tame it. Among the antelopes, or gazelles, the kob, the nanguer, and the nagor, inhabit the banks of the Senegal and Rio Volta. Some kevels and corinnes are also found: these antelopes go in numberless flocks, which often contain upwards of a thousand.^m The boar of Ethiopiaⁿ peoples the marshy woods; but the hog of this country is small and weak. The dogs are of the size of our setters, but approach somewhat to the mastiff; they do not bark, and their hair is short, coarse, and red, as in all warm countries.^o The horses of the Gold Coast are small and ugly; but Adanson admires the horse of Senegal. That river is probably the southern limit of the Berber, or Moorish breed. The ass is exceedingly handsome, and very strong. Camels are sometimes seen, but in small numbers, and never to the south of the Senegal. The negroes rear cattle, buffaloes, sheep, and goats.—The trumpet-bird, or monoceros, is found in all the court-yards of the negroes,

^a Muller, Description de Fetou, p. 209.

^b Wadstrom, p. 77.

^c See our History of Geography.

^d Sprengel and Forster, I. p. 72. III. p. 140.

^e Mollien, p. 290.

^f Grandpré, Voyage en Afrique, t. IV. p. 26.

^g Cuvier, Ménagerie du Muséum, art. Mandrill.

^h *Simia porcaria*, "singe-porc."

ⁱ *Simia diana*, the rolowai.

^k *Guenon*, tailed ape or monkey properly so called in distinction from the baboons, oranges, &c.—P.

^l The poto is the *Viverra caudivolvæ*, or prehensile tailed weasel.—P.

^m Golberry, *Fragmens sur l'Afrique*, t. II.

ⁿ *Sus Æthiopicus*.

^o Rœmer, p. 273. Muller, p. 244

together with the armed goose, the Egyptian goose, the pintado, and the greater part of the poultry known in Europe. Among the multitude of birds which inhabit the forests, we remark the *Ardea alba minor*, or egret, the feathers of which form an article of trade. Beautiful parrots are in unlimited numbers. Swarms of them are seen to rise from the trees, frightened by the cries of the monkeys. Adanson saw the nest of an enormous species of eagle, or vulture, called by the natives, *n'ntann*. This nest was three feet high. Numerous families of sparrows and humming birds sport round the hut of the negro, and the immense baobab supports the nest of the enormous pelican.^a

This region is much infested by venomous insects, disgusting reptiles, and clouds of locusts. Of these, Isert distinguished more than twenty different species on the Gold Coast. Cameleons are very common. The serpents are numerous, and some of them of enormous size. M. Mollien mentions a snake, the bite of which occasioned the skin to fall off in scales, an instance of which came under his eye. There are numerous swarms of wild bees, the honey and wax of which are objects of trade among the negroes. In the sequestered forests, the termites, improperly called white ants, display their astonishing industry. Golberry saw in the woods of Lamayava, at Albrida on the banks of the Gambia, some pyramidal buildings, formed by these insects, which were sixteen feet high, and the bases of which occupied an area from 100 to 110 square feet. In these nests the wild bees generally deposit their honey, to obtain which, the natives set them on fire during the night, that they may avoid the risk of being stung by the bees.^b Crocodiles, cacholots, and manatis, sometimes inhabit, in one common society, the mouths of the great rivers. Oysters are said to fasten in great multitudes on the immersed branches of the mangroves with which these rivers are bordered. They are large, fat, and very good to eat, though less fresh and cool than those found in more northern situations. Cowries, the shells called by naturalists *Cypræa moneta*, which are used as money in all these countries, as well as in many parts of India, are fished on the coast of Congo and Angola,^c and are not brought hither from India as some travellers have asserted. We are not certain if they are found on the coast of Guinea Proper, as travellers give no precise statements on that point.^d Much coral and ambergris is also procured on all these coasts. The fishermen, in the neighbourhood of Cape Blanco, pay their boats with ambergris.^e

The mineral kingdom of these equinoctial countries is probably as rich and varied, though not in so great proportion, compared to other parts of the world, since mineral productions are not influenced by climate; but we know little of their mineralogy. Among the objects most worthy of attention are the gold mines, which are said to exist in the country of Bambook, situated between the Senegal and the Gambia, at equal distances from the two rivers. If we believe two French writers, Pelay and David, who were sent into these countries by the old French India Company to examine these mines, they are situated near the villages of Natakou, Semayla, Nambia, and Kombadyree; but these beds from which the negroes obtain gold, are

only alluvial deposits, derived from real mines, concealed among the mountains of Tabaoora. Eighty pounds of crude mixed earth, taken from a pit in the hill of Natakou, yielded 144 grains and a half of gold. The Semayla mine appears to be the richest.^f There are also gold mines on the Gold Coast at Akim, five days' journey from the Danish fort of Christianburg, but they are not very productive. At a distance of twelve days' journey farther north, near the mountains of Kong, we have reason to believe that the Accasers work a rich mine of this precious metal in the form of deep pits.^g Iron ore, in the form of silicious stones, is abundant in many places, and is smelted by the inhabitants, and manufactured into vessels with the hammer; from which we may conclude that the metal is excellent in quality, and highly malleable.^h Labat saw whole mountains of fine red marble with white veins. The negroes make fine pottery with a white unctuous earth, which is common in these countries. It is on the coast, and more especially in the rivers, near the gulf of the Idolos Islands,ⁱ that the fat clay is found, which the people are said to mix with their food like butter.

After this general view, we shall now proceed to some detailed descriptions of this wide and important region.

The fertile plains, watered by the Senegal and the Gambia, are occupied by a multitude of small kingdoms, some consisting of the indigenous negroes, and others which have been seized by the Moors. Various European powers have perceived the advantages which this country offers for colonial establishments. The French at one time had the largest and most numerous, as Fort St. Louis, and Podor on the Senegal; the forts of St. Joseph and St. Pierre, in the interior in the kingdom of Galam; the island of Goree, called by the natives Barsaghish, near Cape Verd; Albrida and Joal, on the river Gambia; Bintam, on the Cerebes river; and the island of Bissao. All these settlements are now abandoned, and the island of St. Louis is merely a factory under military government, the returns of which, in 1801, gave a population of 10,000 inhabitants, consisting in a great measure of slaves. According to Labarthe, a million and a half pounds weight of gum were exported; also 1500 negroes. The English have, besides Fort St. James, three factories on the Gambia; one at Vintain, another at Jookakonda, and a third at Pisanian: the last of which is the farthest from the sea coast. The French exported to the Senegal goods to the amount of 750,000*l.*; and the English disposed of an equal amount on the Gambia. Spirituous liquors were the chief article.

The kingdom of Owai, or Ualo, contains the lake of Panier Foule, which, in the dry season, is transformed into a fertile plain. The sovereign, who has the title of brak, (meaning king of kings,) is generally subject to the neighbouring Moors.

The Foulahs of the Senegal live above Owai. Some of their tribes enjoy a turbulent independence, such as those of Footatoro, who are also remarked to be the most insolent and inhospitable.^k The greater part of them are subject to a sovereign possessed of considerable power, who has the title of Siratik. In this country is situated Fort Podor

^a Mollien, p. 51.

^b Ibid. p. 227.

^c Proyard, Relat. p. 25.

^d Bruns, Afrika, IV. p. 347.

^e Wadstrom, p. 73.

^f Golberry, t. I. p. 433. 439.

^g Muller, l. c. p. 271.

^h Mollien, p. 147.

ⁱ Los Idolos.

^k Mollien, p. 188.

in the large and fertile island of Morfil,^a formed by two arms of the Senegal.

The Foulahs, who are also called Peuls or Foleys on the Senegal, are widely diffused over Africa. The great body of the nation lives about the sources of the Gambia and Rio-Grande. Besides the colonies found on the river Falémé and the Senegal, there are tribes of them to the south of Fezzan, on the confines of Bornoo, and even in the interior of that kingdom, where they are called Fellata.^b The Foulahs also inhabit the kingdoms of Massina and Tombuctoo on the Joliba, and from these parts probably the colonies went off that are now found in Bornoo. This curious fact seems to be substantiated by some collections of words of the language of these people, made in Senegambia, compared with others, communicated to M. Seetzen by a Fellata of the town of Ader, between Bornoo and Agadez.^c The Foulahs have a reddish black or a yellowish brown complexion, longer and less woolly hair than the negroes, noses less flat, and lips not so thick.^d These features seem to indicate a mixture of the Berber and Negro race. But this mixed nation, which puts the reader in mind of the *Leucathiopes* of the ancients, seems to us to have received from the Arabs not only the religious and civil influence of the Koran, but also the name which it bears, which seems to be the same with that of the Fellahs or cultivators of Egypt. The Foulahs have mild dispositions, flexible minds, and a great turn for agriculture; but those among them who live by rearing cattle, migrate from one country to another rather than submit to tyrannical rulers.

The different states of the Serracolet or Serrawoolet negroes, form a sort of confederation, of which Galam is the metropolis; but the true name of the country is Kadjaaga. The king of Galam at least enjoys a certain ascendancy over that country, which he owes chiefly to the trade of which his territories are the centre, as well as to the trade in captives, who are brought from more distant countries. By an agreement among all the Serracolet princes, the throne of Galam is occupied by their families by turns.^e These negroes are treacherous and cruel, their complexion is extremely black, and it is difficult to distinguish them from the Yalofs.^f The air of the country is purer than along the coast. The Serracolets are great smelters of iron. For hammering it they use rounded pieces of granite, encircled with a leather band fastened to thongs, which the workman holds in his hands. He raises and drops it alternately on the iron, which is placed on a low anvil in the sand, and thus fashions it into bars eight inches long.^g They are the most skilful and persevering in commercial affairs of all the negroes; and being reputed rich, their travelling merchants are obliged to pay heavier duties, in the form of presents, to the chiefs through whose territories they pass. In Galam they are great hunters. Some describe them as treacherous and criminal. Yet it is allowed by all that hospitality is practised by them in a most ample and disinterested manner.

^a "Ile au Morfil," Ivory Island.

^b The Fellatas (Felatahs) are the ruling people in Soudan, W. of Bornoo. Sackatoo, their capital, was visited by Capt. Clapperton.—P.

^c Mithridates, by Adelung and Vater, III. p. 146.

^d Golberry, *Voyage en Afrique*, I. p. 101, &c. Oldendorp, *Histoire de la Mission des Frères évangéliques*, p. 274. Labat, III. p. 170. Pommegeorge, *Descript. de la Nigritie*, p. 52.

^e Golberry, *Voyage en Afrique*, I. p. 571.

^f Labat, III. p. 308—370. IV. p. 45.

^g Mollien, p. 213. 288.

The Mandingos have spread themselves from the country which bears their name, and which is near the sources of the Niger, eastward among the states of Bambarra, and westward among those of Bambook and Woolly. These negroes, who are not of so fine a black as the Yalofs, file down their teeth to a pointed shape. They are a sort of Mahometans, have many Arabic words, and use the Arabic alphabet.^h Their marabouts, or hermits, perform long commercial journeys, and receive visits from those of Morocco and Barbary. They are well acquainted with the interior of Africa,ⁱ and the negro slave trade is in their hands. Since the year 1100 this nation has ruled over the rich kingdom of Bambook.

The Bambookans furnish an example of the usual fate of a corrupted people. Their rich and fruitful soil supplies the inhabitants with the necessaries of life, with scarcely any labour.^k Voluptuous and indolent, they live in a state of utter anarchy, and their wealth becomes the prey of their more active neighbours. Major Houghton, however, gives them a more favourable character, representing them as an industrious people, who manufacture cotton stuffs and iron utensils.^l

The kingdom of Jallonkadoo, in which the river Senegal takes its rise to the south-east and south of Bambook, is inhabited by numerous tribes, whose language, notwithstanding the doubts of Mungo Park, seems to be a dialect of the Mandingo.^m The Jallonka race have, in general, been either converted or persecuted by the Foulahs and other Mahometans. Some fugitives, who have not renounced fetichism, have sought an asylum in the most mountainous districts, such as the mountains of Niekolo and Randeia, where they have mixed with the Youluks, and produced a mulatto breed, who are savage and wretchedly poor. They are remarked for bad and decayed teeth. On the east side of these heights, where the chief rivers begin their course, there is a remarkable difference in the domestic animals. The ass, which is found wild on the southern declivity, is here so entirely unknown, that when M. Mollien brought one with him in his travels, an animal so strange produced consternation among the inhabitants, both young and old.ⁿ

Descending the Senegal from this country, we might name kingdoms and principalities almost without number; but we shall merely notice the state of Bondoo, a pastoral country to the west of Bambook; the inhabitants of which manufacture cotton cloths,^o and dye them black with indigo.^p The country of Kasson, to the east of Galam, is considered as rich in gold, silver, and copper.

The country between the Senegal and the Gambia is chiefly inhabited by the Yalof, sometimes called the Walof nation.^q They are the handsomest negroes of western Africa. They have woolly hair and thick lips, and very black complexions, but are tall and well made, and their features remarkably regular. If we credit M. Golberry, they are a mild, hospitable, generous, and faithful

^h Matthews' *Voyage to Sierra Leone*, p. 71—97, &c.

ⁱ Jobson, in Purchas's *Pilgrim*, p. 1573.

^k Compagnon, dans l'*Histoire Générale des Voyages*.

^l *Elucidations of African Geography*, p. 9.

^m See the words quoted in Mithridates, III. p. 169.

ⁿ Mollien, p. 228. 230.

^o "Pagnes," wrappers, the common covering of the Negroes.—P

^p *Voyage au pays de Bambouc*, 1789.

^q Jaloffs, Oualoffs, Yolofs.

race; and their women are as attractive as jet-black females can be.

They call themselves Mahometans, but their religion has an alloy of idolatry and superstition. Their language is graceful and easy. Their chief takes the title of *Barbi-Yalof*, emperor of the Yalofs, and reigns over an extensive country, little visited by Europeans. His place of residence is Hikarkor. Rich in provisions, cattle, and poultry, this country flourishes under a more regular administration than that of the adjoining states. Justice is administered by a chief judge, who holds circuit courts over the kingdom.^a The people manufacture cotton goods.^b

Several states have separated from the Yalof empire; such as that of Baol, and that of Cayor, governed by a prince who has the title of Damel. Cape Verd, and the small island of Goree, which was fortified and embellished by the French, are in the territory of the Damel.

The most commercial of the Yalof states, is that of Salum, on a branch of the Gambia. The king's residence is at Kahan;^c his cottage is within an inclosure of great extent, which contains more than sixty others, inhabited by his wives, children, officers, and principal slaves. At its entrance are three large courts, lined with the cottages of his servants, each court being guarded by twenty men armed with javelins and hassagays. In the centre of the royal inclosure the cottage of the prince stands by itself, in the form of a round tower, thirty feet in diameter, and forty-five in height, covered with a dome twenty feet high. It is built, like all the dwellings in this part of Africa, of pieces of wood covered with millet straw, but executed more nicely than ordinary houses. The walls and the ceiling are covered with mats curiously figured; the floor is formed of a kind of stucco of red earth and sand, and covered with mats. The walls are hung round with muskets, pistols, and other arms, and horse harness. The king is seated on a low stage at the farthest part of the cottage, fronting the entrance. The kingdom has an area of 11,500 square miles.^d The population is said to be 300,000; the lands are fertile and well cultivated; the foreign commerce is extensive, particularly with the French and English, the former nation being most respected, and best adapted to the character of the people.

The Serreres, a wild and simple tribe, without religion or laws, live in the country of Sin, (or Barb-Sin,) and that of Baol. The negroes call them savages, but Europeans speak in praise of their mild and peaceful dispositions.^e

It is in works more voluminous than the present that a reader could expect to find a complete enumeration of the little principalities situated along the Gambia, together with the discussions which might arise out of the perpetual contradictions found among travellers.^f We shall notice, on the north bank of the river, the countries of Barraha, of Yani, and of Woolly, the capital of which, called Casana by the negroes,^g and known also by the Arabic term, Medina, or the city, is populous and hospitable. To the south of the Gambia, there are twenty small states which

dispute with one another their obscure existence. The most conspicuous nation is that of the Feloops, whose territories are greatly scattered, and extend from the Gambia to the river St. Dominique,^h and a little beyond it.ⁱ Savage and revengeful, but faithful to their friends, they scarcely acknowledge any government; and the paltry fetiche is the only object of their worship. Their country is flat, somewhat sandy, but rich in pasture and rice grounds, abounding in cattle, and maintaining numerous swarms of wild bees, which produce a great quantity of wax. Higher up the country there are steep mountains, composed, according to a rather unlearned traveller, of freestone.

The mutual boundaries of Senegambia and Guinea are left to the caprice of geographers. In the interior of this doubtful space, on the upper part of the Rio Grande, live the nation of the Soosos, erroneously called the Foulahs of Guinea. They have nothing in common with the Foulahs of the Senegal, though Golberry says otherwise. This is shown by the entire dissimilarity of their language.^k

Teembo, the capital of their country, contains about 7000 inhabitants. They have iron mines, worked by women, also some manufactures in silver, copper, and wood; it is said that these people can bring into the field 16,000 cavalry or upwards. They are Mahometans, but surrounded by twenty-four pagan nations or tribes, on whom they are always ready to make war, in order to procure slaves.

They live in a sort of federal republic, in which a secret association, resembling the *vehmik*, or black tribunal of the middle age, maintains order and dispenses justice. This is called the *poorrah*. Each of the five cantons of the nation has one of its own, to which the men are not admitted till they are thirty years of age. The principal members, consisting of persons above fifty years of age, form the *supreme poorrah*.^l The mysteries of initiation, accompanied with some dreadful test of merit, are celebrated in the midst of a sacred forest. All the elements are put in requisition to try the courage of the candidate. It is said that he finds himself assaulted by roaring lions, who are restrained by concealed chains. A dreadful howling is kept up over the whole forest; and a devouring fire flames around the inviolate inclosure. Any member who has committed a crime, or betrayed the secrets of the body, finds himself visited by armed and masked emissaries. On the ominous words being pronounced, "the *poorrah* sends thee death," his relations and friends desert him, and he is left to the avenging sword. Even entire tribes, which make war in contempt of the orders of the great *poorrah*, are laid under the ban, and oppressed by the united attacks of armed deputations from all the neutral tribes. This institution seems to indicate an improved degree of intelligence, and considerable elevation of sentiment.

Proceeding now along the line of coast, we find some low lands intersected by rivers, to the south of the river St. Dominique, inhabited by the Papels, who are all pagans, worshipping trees, cows' horns, and all sorts of visible objects. When their king dies, according to the report of

^a Benezet's Account of Guinea, p. 8. (London, 1788.)

^b Francis Moore's Travels, &c. p. 51.

^c "Cahoune."

^d 1500 sq. Fr. leagues.

^e Pommegeorge, Descript. de la Nigritie, p. 120—126. Labat, IV. p. 156.

^f Consult Bruns, Afrika, IV. p. 272. sqq.

VOL. II.—NOS. 65 & 66

^g Moore's Travels, p. 200.

^h St. Domingo or Cacheo. Lat. 12° 8' N.

ⁱ Schad, a German traveller, quoted by Bruns, Afrika, IV. p. 289. Compare Golberry, I. p. 109.

^k See eight grammars and dictionaries of the Soosoo language, published at Edinburgh, in 1800—1802.

^l Golberry. Voyage en Afrique, I. p. 114.

a traveller, the grandees range themselves around his coffin, which is tossed up in the air by some sturdy negroes, and the individual on whom the coffin falls, if not killed by the weight, succeeds to the throne.^a

They are a brave people; their only weapon is a very long sabre. Large herds of oxen constitute their chief wealth, which they fatten with rice straw. The territories of these people extend from the river Geba, to that of Cacheo, the gates of the Portuguese settlement of Bissao. And the market of that town is so dependent on them for supplies of provisions, that the Portuguese government find themselves under the necessity of cultivating habits of good neighbourhood, with having on some occasions been threatened with a famine when a good understanding was accidentally interrupted.

On the frontiers of the Papels, to the south, dwell the Balantes, a cruel and savage race, with whom the Portuguese have very little communication. Salt is the only article of merchandize which they sell. They eat dogs, and reckon rats the most exquisite of dishes.

Cacheo, a fortress, with a small town, is the station of the Portuguese authorities, and of a weak garrison to maintain in point of form the sovereignty of Portugal over this coast. There is also a fortress called Bissao, on a large island of the same name, formed by the river Geba, at its mouth. The situation is rendered unhealthy by the dampness, accompanied with the intense heat. Yet it is said rather to have the effect of rendering life sickly, than of abridging its duration. The soldiers of the garrison consist chiefly of mulattoes and blacks, with a few whites without shoes or uniform, but muffled up in robes of flowered cotton, and mostly in rags. They are on the whole much neglected by the government. All the commerce here is conducted by barter, and is exclusively in the hands of the governor, who thus acquires considerable wealth, while the inhabitants are idle and poor. In an inland situation, 160 miles up the river Geba, is the Portuguese settlement called Geba, of which M. Mollien gives a curious account. The commandant receives visits in a large hall where straw beds are placed all round, on which the negroes seat themselves indiscriminately with Europeans, and every one has complete personal liberty either to whistle or lie down to sleep, or eat at any time he thinks fit; yet none must pass the door without taking off his hat most respectfully, whether the master be within or not. The surrounding district is called Kaboo, and is inhabited by a mixture of nations, consisting chiefly of pagan Madingoes. The villages are large and populous, and the fields well cultivated. The houses of Geba are composed of mud, and there is no fort; the soldiers are negroes. The settlers are on good terms with the surrounding natives, who make war on one another's villages, and sell their captives at this place to the Portuguese. M. Mollien saw only three Europeans at this place.

The Bissajos^b islands form a smiling and fertile archipelago, surrounded, and almost covered on the west side by a series of sand and clay banks, 165 miles^c long, rendering the navigation extremely dangerous.

The soil of these islands is watered by numerous small rivers; it produces rice, oranges, citrons, bananas, melons,

peaches, and excellent pastures, on which the inhabitants rear cattle, consisting chiefly of hump-backed oxen of prodigious size. Fish are in great abundance on all their shores.

Bulam^d Island, which is the one nearest the continent, was pronounced by the intelligent M. Brue, a good place for a French settlement;^e the English hearing of the plan, hastened to anticipate it; but they treated the natives rudely; they neglected the precautions which the climate requires; their colony went to ruin, and is now annihilated.^f The useful plants grow here in great profusion, as rice, indigo, coffee, cotton, and a variety of fruit trees. But the air is humid, and proves highly deleterious when the due precautions are not observed.^g The Bissajos, or Bidjoogas, make themselves formidable to their neighbours, by their incursions, and the cruelties which they commit. Fishing and piracy are professions which they cultivate by turns. The cock is esteemed among them a sacred animal. They possess much muscular strength of arm, harsh features, and quick movements. Almost all of them have muskets, or lances, which they use with much address. Their petty chiefs have turbulent subjects and tempestuous courts. The family of a minister is sometimes ordered by the caprice of a despot to be sold into slavery. Fertile as this archipelago is, the diet of the inhabitants is extremely simple. Zealous friends of the Portuguese, they bear an implacable hatred to other-European nations.

The Portuguese have numerous settlements along the banks of the Rio Grande, especially on the south bank. Entire villages are peopled by their colonies; but the English are much more successful, than they are, in commerce. The north bank of the river is occupied by the Biafars, called also Jolas, who possess all the track that lies between the Geba and the Rio Grande. This people are almost continually at war with the Papels; but they are much gentler, and more tractable, and suffer much from the former, to whom the wealth acquired by their industry presents strong temptations. Here we find the town of Ghinala, where the king resides; Beguba, and the river of the same name; Balola, and several Portuguese settlements, the largest of which is at Caooda, about 140 miles^h from the mouth of the river. The south bank is inhabited by the Naloes, a negro race so completely mingled with the descendants of the original Portuguese, as not to be distinguishable from them. Their pursuits are agricultural and pastoral, and their country is exceedingly fertile. The Portuguese have introduced among them some useful knowledge; their well cultivated fields produce the best indigo, and the finest cotton. The cloths which they manufacture from the latter substance are highly valued for the fineness of their fabric, and they have the art of dyeing them with beautiful colours, which make them objects of demand with the adjoining nations. Their principal river is the Nuno-Tristao, called by some writers Nonunas, a name which appears favourable to the views of those who wish to identify it with the river Nunius of Ptolemy; but both terms are of Portuguese origin.

The islands of Los, where some English merchants have formed a settlement,ⁱ owe their present name to the Portu-

^a Schad, quoted by Bruns, p. 289.

^b Bissagos, Bijuga.

^c 60 Fr. leagues.

^d Bulama.

^e Labat, V. p. 85. Pommegorge, p. 133—135.

^f Beaver's African Memoranda.

^g Johansen's Account of the Island of Bulama, (London, 1780.)

^h 50 Fr. leagues.

ⁱ Curry's Observations on the Windward Coast, p. 180.

guese, being a corruption of *Yola de los idolos*. The native inhabitants are called Forotimah.

Immediately to the south of this Portuguese line of coast we find the English settlement of Sierra Leone, formed in 1787, for the express purpose of labouring to civilize the Africans. In this quarter the English have made the greatest exertions to limit, if not to abolish the trade in slaves, but philanthropy, and penal statutes, and vigilance, have been found but feeble barriers, when opposed to the cupidity of unprincipled traders. It is computed that there are not less than three hundred vessels on the coast, engaged in this disgraceful traffic, which is probably carried on to as great an extent at this day as at any former period. It appears from papers recently laid before the British Parliament,^a that the whole line of Western Africa, from the river Senegal to Benguela, that is to say, from about the latitude of 15° north, to the latitude of about 13° south, has, during that period, swarmed with slave vessels; and that an active and increasing slave trade has also been carried on, upon the eastern shores of that continent, particularly from the island of Zanzibar. Not less than 10,000 liberated slaves, from the slave ships captured by British cruisers, were calculated to be in the colony in 1821. The landing of these cargoes is often a very affecting scene. The poor creatures, delivered from the hold of a slave ship, faint and emaciated by harsh treatment and disease, when received with kindness and sympathy by the inhabitants, among whom, perhaps, they recognise a brother, a sister, or countryman, whom they had supposed long since dead, but whom they are astonished to see clothed and clean, are overwhelmed with feelings which they find it difficult to express.^b On their arrival, those of a proper age are named, and sent to the adjacent villages. A house and lot is appointed to each family; they are supported one year by government, at the expiration of which they are obliged to provide for themselves. The captured children are also sent to villages, where they are kept at school till married, which is always at an early age. At the head of each village is a missionary, who acts in the double capacity of minister and schoolmaster. The number of persons attending the schools in January, 1821, was 1959.

The African Institution endeavours to promote a friendly intercourse with distant, as well as neighbouring countries. The natives of Foulah resort to the colony to participate in the advantages of legitimate commerce; and it may even be expected, that some years hence, caravans will resort to the neighbourhood of Porto Logo, (on a branch of the Sierra Leone,) to convey the manufactures of Europe into the very interior of the continent of Africa.^c Trade is rapidly increasing. The total invoice amount of imports at the port of Freetown, for the year 1820, was 66,725*l*.

^a Report of Commodore Sir G. R. Collier, Dec. 27, 1821.

^b Sixteenth Report of the African Institution, p. 328.

^c Sixteenth Report of the African Institution.

^d Sierra Leone in 1825 contained 18,000 inhabitants; of whom about 12,000 consist of liberated Africans, who, for the most part, occupy the parishes in the mountains, where they inhabit villages, surrounded by tracts of cultivated ground, and containing schools for both sexes. In 1823, the timber trade on the river Sierra Leone furnished 15,000 loads for the British market. The invoice value of the cargoes imported into the colony, the same year, was £121,442 18*s*. 11*d*. The exports consisted of ship timber, camwood, palm oil, elephants' teeth, gold dust, copal, bees-wax, rice, and malaguetta pepper.—19th Report of the African Institution.—P.

^e Sixteenth Report of the African Institution, p. 354.

^f Afzelius, in the Report on Sierra Leone, addressed to the Proprietors, Curry, p. 37.

9*s*. 4½*d*.; and, for the same period in 1821, the amount was 105,060*l*. 15*s*. 10¾*d*. being an increase of 38,335*l*. 6*s*. 6*d*.¹

The exertions of the African Institution, aided by the Missionaries of the Church of England, have effected a remarkable improvement in the morals of the inhabitants, who are stated to be generally contented and industrious.

The total population of Sierra Leone, by the latest returns, is computed at 17,000. Besides Freetown,^e there have been built Regent's Town, which contains nearly 2000 inhabitants, and the towns of Gloucester, Leopold, Charlotte, and Bathurst, all of which appear to be thriving. A little to the west of Sierra Leone is Krootown, a small village inhabited by about 500 Kroomen. The British ships of war on the station, have each from twenty to seventy of these men in their books, who are said, whatever their pilfering habits may be on shore, to behave with the utmost propriety on board of ship. A fort, erected on the Island of Bance, commands the entrance of the river, which has been ascended by Europeans beyond its picturesque cataracts. In this country indigo grows well; several varieties of coffee are known;^f the citron is degenerated, and its fruit resembles lemons. All the esculent and aromatic plants of Africa are in great abundance. The gum of the butter-tree is used as a yellow dye; the *colla* bark seems to belong to a species of *cinchona*.^g The pullam-tree produces a silky cotton. The chimpanzee monkey is met with in the interior; an animal five feet in height, with a pale face, the hands and stomach without hair, habitually holding himself erect, and even, it is said, sitting like a man; circumstances which make him highly interesting to the naturalist.^h

When the Portuguese discovered these places, they called the promontory to the south of the present settlement Cape Ledo, and the mountains in the interior Serra Leona, or "the Mountain of the Lioness." This name, somewhat disfigured, has been since given to the Cape, the river, and the adjacent district.^{i k}

The English seamen have given the name of the Windward Coast to all that lies between Cape Mount and the river Assinee,¹ and they divide it into three parts, the Grain Coast, which terminates in Cape Palmas; the Ivory Coast, bounded on the east by the river Frisco or Lagos; and the coast of Adoo or Quaqua, comprehending the remainder. All that part lying between Capes Palmas and Apollonia, is generally included under the name of the *Côte des Dents*,^m or the Ivory Coast. The English themselves differ in their application of the term Windward Coast; some of them extending it no farther east than Cape Palmas.ⁿ The Gold Coast begins either at Cape Apollonia, or the river Assinee, and is generally considered as termi-

¹ Curry, p. 40.

² Afzelius, libro citato.

³ Dalzel's Instructions for the Coast of Africa. London, 1806.

⁴ In 1822 Major Laing was sent on a mission to the Soolmas, 200 miles eastward of Sierra Leone, near the great granite chain, or Kong mountains. Their capital is Falaba, said to contain 4000 houses. They are peaceable and industrious at home, but often engaged in war. Agriculture and the arts are considerably cultivated. On his route, he passed through the territories of the Timannees and Koorankos, the former of whom are indolent and corrupt, probably from their connection with the coast; the latter industrious, and, like the Soolmas, skilled in some of the arts, particularly in the working of iron and leather.—P.

⁵ Norris and Young, quoted by Dalzel.

⁶ Tooth Coast.

⁷ Clarkson's Essay on Slavery, p. 29. Newton's Thoughts on the African Slave Trade, at the beginning

nating at the Rio Volta. Then comes the Slave Coast, that of Benin or Wara,^a that of Calabar, and that of the river Gabon. All these countries taken together form Guinea in its strictest acceptation, which we shall here retain.

Between Cape Mount and Cape Palmas, the coast produces abundance of rice, yams, and manioc. The cotton and indigo of this country are of the first quality.^b The articles for which Europeans have hitherto visited it are malaguette pepper, red wood, and ivory. The inhabitants are skilful and intrepid rowers, but distrustful of Europeans. The negroes on the banks of the river Mesurado speak a corrupt dialect of Portuguese, and acknowledge themselves vassals to Portugal, but are not, as some have supposed, Europeans changed to negroes by the power of the climate.^c Sesthos, or Sestre, is a pretty large negro town. The houses are in the form of conical huts two stories high.^d

The old travellers, consulted by Dapper,^e assign a place here to the kingdoms of Quoya and Hondo, which they describe as dependent on a more powerful kingdom in the interior, the inhabitants of which were called Mendi-Manoo, that is, the governing people. The word *manoo*, or *monoo*, an epithet common to all the tribes of these nations, has a striking affinity to the word *mannoo*, which signifies man in the dialect of the Sokkos, a people, of whom Oldendorp, the missionary, knew some individuals at Saint Croix, and who must live to the north-west of the Aminas.^f The Sokkos are neighbours to the Uwangs. The specimens of their language given by Oldendorp, resemble the Jallonkadoo words given by Mr. Park. The king of the Sokkos has many princes under him, and takes the title of *mansa*. There are presumptions of the identity of the Sokkos with the Mendi-Manoos. In manners and laws, these people bear some resemblance to the Soosoos. They have a secret tribunal, a mysterious order called *Belli-Paaro*, similar to the *poorrah* of the Soosoos.^g At the funeral of a man his favourite wife is sacrificed by the priests and thrown into the grave of her husband. The Sokkos, whom Oldendorp knew, said that baptism and circumcision were among the religious practices of their country, from which a learned geographer rather boldly attempts to infer some connection between the nations of Guinea and the Abyssinians.^h These Sokkos, it must be remarked, are entirely different from the Asokkos, in the country of the Issinese, on the Gold Coast,ⁱ which appear to us to be the Insokkos of M. Ehrmann,^k though M. Bruns says^l that he could not find the Insokkos.

Two other traditions are worthy of our notice. The na-

tions now mentioned have been subdued by the Folgians, who are probably the southern Foulahs. Another nation called the Gallas^m has been expelled from these countries,ⁿ but to look in these for the Gallas on the confines of Abyssinia, is to confound the negro and the Caffre race with each other.

The Ivory Coast, as far as Cape Lahoo, is inhabited by a warlike nation of a dark unsociable disposition, at least towards Europeans, and according to report addicted to cannibalism.^o The Portuguese have surnamed them *malas gentes*. The coast is adorned with natural orchards. In the river St. Andrew, elephant's teeth are exposed for sale weighing 200 lbs. The animal called quogelo, mentioned by Desmarchais, does not resemble any species known to us.

To the east of Cape Lahoo, are the Quaquas, or Good People. These are divided into castes like the Hindoos and ancient Egyptians, and the son uniformly follows the profession of his father.

The Gold Coast derives its name from the great trade in gold dust carried on in it, which has given rise to many European establishments. It also abounds in fish, the chief of which are the sea bull, and the fish called from its shape, the hammer.

The forts and factories belonging to Europeans in this quarter, are about forty in number, fifteen Dutch, fourteen English, four Portuguese, four Danish, and three French. At present most of them have been destroyed or deserted, which some ascribe to the abolition of the slave trade;^p a circumstance which, if true, would indicate that they were concerned in a business less innocent than the trade in gold dust. The Dutch trade was concentrated at Elmina. The principal English establishment was Cabo-Corso.^q The head quarters of the Danes was Christianburg;^r the Danish forts of Printzensten and Kongesten are well built. The Danes commanded the Rio Volta, and were in great favour with the tribes on the coast.

A learned Dane, M. Isert, went into the country of Aquapim, fifty-six miles^s from Christianburg. The country seemed beautiful, fertile, and populous. It is generally well wooded, yet more salubrious than the sea-shore, and agreeably diversified with mountains, valleys, and hills. Water, which on the sea shore is scarce and brackish, is good and plenty in the interior. At the distance of about five Danish miles from Christianburg, a chain of mountains begins, which is covered with tall trees, and composed of coarse-grained granite, gneiss, and quartz. The information obtained by the researches of the African Association of London coincides with the accounts of M. Isert.

^a "Ouare," Oware, Owarah, Awerri.

^b Falconbridge, Account of the Slave Trade, p. 53.

^c *Colony of Liberia*.—In Dec. 1821, the American Colonization Society effected the purchase of a tract of territory at Cape Montserado, (Mesurado,) on which a settlement was made soon afterwards. The colony at first was disturbed by the native blacks, who made two attacks upon it, in large bodies, (Nov. 1822,) but were repulsed with great loss. Since then the colony has received continual accessions from the United States, and been rapidly improving. Additional purchases have been made in the vicinity, particularly on St. Paul's river, N. of the Mesurado, and Stockton creek, which opens an inland communication between the two rivers. The first and principal settlement is at Monrovia, on Cape Montserado, which is fortified, with a government house and stores, churches, and schools. Farming settlements are formed at Caldwell on St. Paul's river, and on Stockton creek. Several trading factories are established along the coast, over which the society have a qualified jurisdiction, for 150 miles, from Cape Mount to Trade-town. This jurisdiction secures to them the trade of the country, and precludes all Europeans from any possessions within these limits. It also enables

them to put a stop to the slave trade. The population of the colony exceeds 1200, and the trade is already considerable. Cape Mesurado is in lat. 6° 13' N., 250 miles S. E. of Sierra Leone.—P.

^d Atkins' Voyage, p. 63. Smith's Voyage, p. 106.

^e Dapper, Descript. de l'Afrique, p. 386, &c. (edit. All. de 1670.)

^f Oldendorp, Hist. des Missions Evangél. p. 280.

^g Dapper, l. citat. p. 415.

^h Bruns, Afrika, IV. p. 374.

ⁱ Issini and Assoka are in the country of the Quaquas, in the eastern part of the Ivory Coast.—P.

^k Hist. des Voyages, X. p. 137.

^l Afrika, IV. p. 376.

^m "Gala's."

ⁿ Dapper, p. 388.

^o Smith, p. 110. Desmarchais, Voyage à Cayenne, &c. I. p. 200.

^p The author in the original.

^q Cape Coast Castle.

^r Christiansborg.

^s 20 Fr. leagues.

In the neighbourhood of the sea, the soil of Guinea is in many places light and sandy, and consequently unfavourable to the culture of the greater part of tropical productions. In places where the soil is of a different character, the vegetation of many plants is opposed by other circumstances. Among these are the coolness and moisture of the sea-breezes, or south-west winds, which meet with nothing along the coast to interrupt their progress; the saline impregnation which the earth derives from the sea; and the surf, which is general and violent. At a distance of two or three miles from the shore, the soil becomes more productive, and improves progressively, till, at a distance of eight miles, it becomes very fertile, and fit for all the crops reared in intertropical situations. The climate at the same time is sufficiently temperate to admit of the vegetation of the different grasses and trees of Europe.^a

These observations apply in a particular manner to the Agoona country, of which Wimbah, or Winnebah, is the capital. All the lands of this district are in common. No person is allowed to become proprietor of more land than he can cultivate with his own hands: scarcely a tenth part of the land is cultivated. Each individual may occupy and till whatever portion he pleases; but if he leaves it untilled, he cannot prevent another from seizing it in the same temporary way. The purchasing and measuring of land are unknown among the natives. It is never sold except to Europeans. The latter are safe from all disputes about their right of possession; but they are not equally sure of enjoying the benefit of their crops, unless they have an adequate force to defend them from the licentious covetousness of the natives.

Though the whole Gold Coast exhibits one general character in its soil and climate, there are essential differences in some particulars. For example, the Anta country, which the river Ancobra separates from the State of Apollonia, has a rich soil, plenty of wood, is well watered, and industriously cultivated. It has harbours and good roadsteads. The state of Apollonia is still better watered with lakes and rivers; it contains more flat land adapted to rice crops, sugar cane, and other species which require humidity. The chief disadvantage under which this coast labours, is a violent surf, which makes the landing very dangerous. The form of government is the most absolute despotism, which operates as a preventive of many of the disorders which are common in the adjoining countries. Africa unfortunately is obliged to look to slavery for its safety. Among the pretended republics, or rather turbulent oligarchies of the Gold Coast, the warlike state of Fantee is the most powerful and the most regularly constituted.^b

The interior is occupied by two powerful nations. The Aminas, who have plenty of gold, extend in a north-western direction through a space of fourteen days' journey.^c Their language, which has become known by the researches of the Danes, prevails over a great part of the coast.^d The Ashantees^e in the north-east, seem to be the Argentinians of a certain French writer.^f A king of this nation in 1744, made a very distant expedition to the north-east,

marching twenty-one days through a well wooded country intersected by rivers; fourteen days were employed crossing a sandy desert where no water was found. The Mahometan nation which it was his object to attack, surrounded him with an immense army of cavalry, so that he returned with a slender remnant of his force, bringing along with him a great number of books in the Arabic language, which afterwards came into the hands of the Danes, and probably are now in the royal library of Copenhagen.^g The learned Mr. Bruce thinks that this Mahometan country was Degombah, the same which was visited by the sheriff Imhammed, and Timbah, mentioned by Oldendorp, from information derived from the negroes. The Timbah nation is called by the Aminas, the Kassiante.

The Slave Coast, in the strictest acceptation, includes the states of Coto, Popo, Whidah, and Ardra. The maritime flat country here is broader than that of the Gold coast, and extremely fertile. Poultry are in uncommon abundance, and the air is darkened by flocks of bats like dense clouds. The French had a trading settlement at Whidah, or Juda, and the Portuguese sell their tobacco at Porto-Novo. The small states on the sea-coasts are subject to the king of Dahomey, who by his conquests raised himself from the rank of a small proprietor,^h to that of a great African monarch. He has only about 19 milesⁱ of sea-coast, and though he can bring into the field 8000 men, yet being every where surrounded by enemies, he would soon be expelled from the maritime parts, if he were not supported by the European forts. His villages are large and populous. Abomey, the capital of his kingdom, is situated at a distance of eighty miles^k from the coast, and contains 2400 inhabitants. The king has two pleasure-houses at Clamina and Agona, where he most commonly lives. These palaces are only a better sort of cottages, contained within a park more than half a mile round, inclosed by an earthen wall. In this place there are 800 or 1000 women, armed with muskets or javelins. These light troops form the king's guard, and from them he selects his aides-de-camp and his messengers. The ministers leave their silk robes at the gate of the palace, and approach the throne walking on all fours, and rolling their heads in the dust.

The ferocity of these kings almost surpasses conception. Mr. Dalzel, the English governor, found the road to the king's cottage strewed with human skulls, and the walls adorned and almost covered with jaw bones.^l The king walks in solemn pomp over the bloody heads of vanquished princes or disgraced ministers.^m At the festivals of the tribes, to which all the subjects bring presents for the king, he drenches the tomb of his forefathers with human blood. Fifty dead bodies are thrown round the royal sepulchre, and fifty heads stuck up on poles. The blood of these victims is presented to the king, who dips his finger into it and licks it.ⁿ Human blood is mixed with clay, to build temples in honour of deceased monarchs.^o The royal widows kill one another till the new sovereign puts an end to the slaughter. The people, in the midst of a joyous

^a Meredith's Description of the Agoona country, in the Fourth Annual Report of the African Association.

^b Rømer, p. 187. p. 236.

^c Oldendorp, Hist. des Missions, p. 277, &c.

^d See Protten's Introduction to the Fantee, or Amina language, published in the Danish language at Copenhagen, 1764.

^e Assianthés.

^f Pommegeorge, de la Nigritie, p. 142.

^g Rømer, p. 183.

^h "Cabossier," caboceer, village chief.

ⁱ 7 Fr. leagues.

^k 28 Fr. leagues.

^l Dalzel's History of Dahomey, London, 1796.

^m Bruns and Zimmermann, Recueil Geograph. III. p. 115.

ⁿ Norris, Voyage à Dahomey, dans le Magasin des Voyages, V Berlin, 1792. Isert, Voyages, p. 178.

^o Bruns and Zimmermann, p. 114.

festival, applaud these scenes of horror, and with delight tear the unhappy victims to pieces, yet they abstain from eating their flesh.^a

The king of Dahomey is tributary to the king of the Eyeos,^b a very powerful nation, whose territories are north-east from Dahomey, and extend to the banks of a large lake, from which several rivers take their rise, and fall into the Gulf of Guinea. May not this be the lake of Wangara? The Eyeos are considered as contemptuous with Nubia; which is certainly an exaggerated statement. The king, whose numberless cavalry forms his chief force, lives 150 German miles^c from the coast. The Eyeos are a war-like people. They have among them extensive cotton manufactures.^d

East from Dahomey, and south from the Eyeos, lies the kingdom of Benin, the king of which can bring 100,000 men into the field. The river, which the Portuguese call Rio-Formosa, is very broad at its mouth, and has been navigated as high as Agathon, one of the chief towns, about forty miles^e north-east from the sea. The road from Benin to Agathon is much frequented, and lined with very large and lofty trees, which afford an abundant shade. The city of Benin, on the river of the same name, is surrounded with deep ditches, and there are traces of an earthen wall by which it has been protected. The streets are fifteen feet broad; the houses low, covered with the leaves of the macaw tree,^f and kept exceedingly clean. There are no stones in this country, and the soil is so soft that the river detaches several acres at a time. The floating islands thus formed are the dread of seamen.^g The vast palace of the king, on the outside of the city, is defended by walls; it contains some handsome apartments, and fine galleries supported by wooden pillars. The market is not exactly adapted to the taste of Europeans: the leading articles are dog's flesh, of which the negroes are very fond; roasted monkeys, bats, rats, and lizards; it also contains delicious fruits, and goods of all descriptions. The climate is one of the most deadly to the European constitution. M. Palisot-Beauvois calls it pestilential.^h Between three and four thousand slaves were purchased here by the traders.

The inhabitants of Benin have the same laws and customs as the people of Dahomey. The king, who is venerated as a demi-god, is believed to live without aliment, and when he dies, is believed only to lose his former body, in order to revive under another shape. At the festival of yams, he plants a root in a pot of earth in the presence of the whole people. Immediately after it, another pot is presented with a juggling dexterity, containing a root which has begun to sprout. This miracle inspires the credulous spectators with the hopes of a good harvest. Human sacrifices form part of the propitiatory worship offered to the avenging or evil genius. The victims, who are generally prisoners of war, when immolated, amidst the dreadful vociferous songs of the whole people, show a most stupid indifference. At the festival of corals, the king and all the

grandees dip their coral necklaces in human blood, sup-
plicating the gods to preserve for them this high mark of their dignity.ⁱ

The kingdom of Waree^k comprehends the flat marshy countries to the south of Benin, where there are a number of rivers, probably branches of the Rio Formosa. After Cape Formosa, the Calabar^l country begins, which is also intersected by many rivers, among which is the river Rey, or New Calabar, which admits vessels of 300 tons. The sovereign has the title of *délémongo*, or "the Great Man."^m The island of Bonnyⁿ is a great slave market, and, along with Calabar, used to export 14,000 annually. A part of this coast is covered with layers of sea salt. After the high land of Ambosès, which seems to contain volcanoes equalling the Peak of Teneriffe in height, we arrive at the river of Cameroons,^o or Jamoor, the mouth of which is very broad. It has a good harbour, and the water is good and sweet. Here wax, elephants teeth, red wood, and refreshments, are to be had at reasonable prices, and the Dutch carry on a great trade with the natives. The river of San-Benito is 110 miles^p beyond it. From the shore a double range of very high mountains^q is seen at a distance of thirty or forty miles.^r About forty miles^s from the mouth of the river is Cape St. John, which is dangerous to navigation, from a sand-bank about a league out at sea. This Cape forms, with Cape Esteiras to the south, a bay, in the middle of which is the island of Corisoo, which has never been particularly explored. The river of Gaboon^t to the south of this Cape in the Pongo country, is only twenty-eight miles^u from the equator. The approach to it is rendered difficult by the prevailing currents. There are two small islands at the mouth of the river; one called King's Island, because it is the residence of a king; and the other called the Island of Parrots. The negroes along this coast are a bold and hardy race.

The gulf, which is bounded by Cape Formosa on the north-west, and on the south by that of Lopez-Gonsalvo, takes the name of the Gulf of Biafra.^x It contains the islands of Fernando-Po, St. Thomas, and Prince's Island, which we shall describe in another place.^y

The nations of these coasts are very little known. The Calbongos live on the San-Benito, and the Biafras on the Cameroons. In the interior, an African has informed us of the *Ibbo*^z nation, to which he himself belonged, and which seems to furnish the greatest part of the slaves exported from Benin. He had travelled between six and seven months from his native district to the smiling and fertile valley of Essaka, on the coast of Calbari. In every part yams, bananas, pumpkins, and sugar canes, were in abundance: the cocoa tree was rare. There is a town called Timmah, situated on a lake. He had also seen a great river, but does not give any certain account of its direction.^a The vague notices of this traveller serve rather to excite than to satisfy the curiosity of geographers.

^a Isert, p. 180.

^b "Eyeos, Ios, or Ayeos."

^c About 690 Eng. miles.

^d Isert, p. 160. Snelgrave, p. 56—121. Dalzel, Pommegorge, &c.

^e 14 Fr. leagues.

^f "Latanier."

^g Bosmann, p. 450, &c.

^h Palisot-Beauvois, *Mémoire lu à l'Institut*, 15 Nivose, an IX.

ⁱ Idem.

^k "Ouari."

^l Kalbari.

^m Oldendorp, *Hist. des Missions*, p. 280.

ⁿ "Bony," Bani.

^o "Camarones, Camaroens."

^p 40 Fr. leagues.

^q "Les doubles montagnes."

^r 12 or 15 French leagues.

^s 15 Fr. leagues.

^t Rio Gabon.

^u 10 French leagues.

^x Bight of Biafra.

^y p. 150 of this volume.

^z "Ebboes or Ibboes."

^a Olaudah Esquianos, or Gustavus Vasa the African's Account of his own Adventures.

BOOK LXVII.

THE RIVER NIGER AND NIGRITIA.

HAVING gone over some countries which are imperfectly known, we now come to regions of which we know nothing. We must penetrate, in imagination, these central parts where European travellers have merely touched the outskirts. Not having it in our power to describe them, we proceed to discuss the vague traditions and contradictory reports, which show us that this hitherto inaccessible country contains great rivers, opulent cities, and numerous nations, which are concealed from our view.

In our history of Geography, we give a rapid account of the knowledge obtained, and the conjectures formed, by the Greeks, Romans, and Arabians, concerning these countries. Ptolemy, the best informed of the ancient geographers, as commented on by the most learned of the moderns, M. d'Anville, makes mention of two great rivers, the Ghir, which runs from south-east to north-west, nearly like the Misselad, or Bahr-el-Gazel, in our modern maps; the other, the Niger, runs nearly in the direction of the Joliba, from west to east. But in following the literal meaning of Ptolemy, we are not certain that this author thought all that his commentator makes him say. He seems to give the Niger two outlets; one westerly in the Lake *Nigrites*, the other easterly in the Libyan Lake, besides different canals of derivation designated by one of the most ambiguous words in the Greek language, (*εξβολη*), a word which may signify the mouth of a river, or a place where roads separate, or a canal,^a or a simple bending. Taking advantage of these uncertainties, and applying to the interior the system of M. Gosselin, which contracts Ptolemy's map two-thirds, it has been attempted to prove that the Ghir and the Niger of Ptolemy do not belong at all to Nigritia, but were only small rivers on the southern declivity of Mount Atlas.^b The great characteristic mark given by Pliny, to wit, the position of the Niger between the Ethiopians and the Libyans, *i. e.* between the negroes and the Moors, appears to us conclusive against these recent hypotheses. Perhaps it would be sufficient to limit a little the information of Ptolemy, by extending it no farther west than Lake Djibbie.^c Agathemerus, who confounds the Ghir and the Niger with one another, still makes this one of the largest rivers in the world.

The Arabians indeed furnish us with more numerous particulars than Ptolemy; but the contradictions contained in their accounts render them very difficult of application. "The Nile of the negroes," says Edrisi, "runs from east to

west, and falls into a sea, (or *the sea*,) at the distance of a day's journey from the island of Oolil. The dwellings of the negroes are along this river, or along another which falls into it."^d Leo Africanus applies Edrisi's description of the Nile of the negroes to the river Niger. He even expressly says that this river falls into the ocean, but still he acknowledges that some authors make it run from west to east, and terminate in a great lake.^e Shehabeddin is the only Arabian author who asserts that the Nile of Djenawa does not reach the ocean, but ends its course in the deserts.^f All of them mention, like Ptolemy, many fresh water lakes which must be formed by rivers.

Applying the name of the Nile of the Negroes to the Misselad, and supposing that both this river and the Niger lose themselves either in lakes or in the sands, D'Anville, and, long after him, Rennel, have constructed maps, half traditional and half hypothetical, which are usually followed with more or less modification.

But a very able geographer, M. Reichard, has proposed an important alteration, which amounts to more than a mere modification. Allowing the Niger and the other rivers the general direction assigned to them by D'Anville and Rennel, he adds an outlet connected with the Gulf of Guinea. "To the west of Wangara," says this author, "the Niger has a southerly course; and the Misselad, after having traversed the lake of Fittree, then that of Semegonda, leaves this last in two leading branches, which encircle Wangara and fall into the Niger; then this last river continues in a south-westerly course, till it terminates in the Gulf of Guinea, where it forms a delta between its western branch, the Rio Formoso, and the eastern one, the Rio-dél-Rey."^g This opinion he supports by the following train of argument.^h

Rennel supposes that all the waters produced by the inundation of the Niger, the El-Gazel, the Misselad, and the other rivers which water Wangara, are dissipated by evaporation. The principles of natural science will not allow us to admit such a supposition. Wangara is a fertile populous country, covered with towns. The tropical rains occasion annual inundations. The rivers begin to overflow about the middle of June, they are at the highest in August, and are restored to their usual state in September.ⁱ This is generally understood. When the waters have subsided, the country must be sufficiently dry for cultivation. Let us allow three months, *i. e.* till the end of December,

^a "Canal d'écoulement."

^b Mémoires de M. Latreille.

^c See the map of ancient Africa, in our Atlas. M. B.

^d Edrisi, Hartmann, p. 12.

^e Leo Africanus, p. 6.

^f Notices et Extraits de MSS. II. p. 156.

^g See our General Map of Africa. M. B.

^h Ephemerides Geographicae of Weimar, v. XII. No. 2. (Aug. 1803.) p. 157, &c. Annales des Voyages, t. V. p. 232, &c.

ⁱ Browne, ch. XVIII. Hartmann, Edrisi Africa, art. Wangara, p. 47, &c. quoted by Reichard.

for complete evaporation, although Edrisi says that the inundation continues no longer than that of the Egyptian Nile. Browne, in his chapter on vegetation, says that in this climate the ground is dry for seven or eight months. The meteorological observations made by this traveller for two years, make the usual heat of these countries in those months 85° of Fahrenheit. The temperature of Wangara must be still warmer. Let us allow that the thermometer in general rises to 90°, and that, in this burning climate, the evaporation of water exposed to the sun will be three Parisian feet in a month. This estimate is certainly not too low, for it allows an evaporation three times as great as takes place in our temperate climate during one of the warmest months of the year.

Then calculating what may be the mass of water which the Nile pours into Wangara, M. Reichard finds for the three months of the inundation, 14,226,969,600,000 cubic feet. "The surface of this country, which Rennel, after Edrisi, estimates at 370 miles in length, by 170 in breadth, is 22,595, or, in round numbers, 2260 square miles, equal to 1,182,119,594,000 square feet, the length of a mile being about 22,870 feet. According to this reckoning, the Niger alone would pour into the basin of Wangara a mass of water more than fourteen feet deep. But, says M. Reichard, this is only one of the rivers. On all sides from Bornoo, from Kookoo, from Baghermi, from Bergoo, from Foor, from Medra, the waters of Africa flow into Wangara. We may reasonably consider these put together as equal to the Niger, for, as their course is shorter, they lose less by evaporation and absorption in the soil than the Niger, which comes from a distance three or four times greater. Taking the quantity of water supplied by these rivers at one half of what this calculation would make it, there will be seven billions of cubic inches of water; which will make the depth of that which is brought into Wangara more than twenty-one feet. But since only nine feet can be evaporated in three months, more than seven months will be required to dry the surface; which, added to the three months of the inundation, will only allow the inhabitants two months for seed-time, growth, and harvest. The expenditure of the water cannot, therefore, be accounted for by evaporation alone."

This first argument of M. Reichard is not perfectly conclusive. His calculations cannot be depended on. The existence of a great lake would explain the whole difficulty. But let us hear his other reasons, which give support to one another.

Edrisi says that the Nile of the negroes surrounds Wangara the whole year. From this testimony that country has received the figure which we find given to it in our maps. The Niger, which comes from the west, is divided into two below Ghana. The northern arm runs straight east; the southern one forming an elbow, corresponding to the surface of Wangara, turns round again to the north, and both fall into the Lake of Semegonda. This at least is what may be conceived to take place. But is this result just and conformable to the nature of things? Can we suppose a river which is navigable the whole year, and one or two English miles broad, will fall into a lake which has scarcely twenty or twenty-five square miles of area, without making it rise high above its banks. For the Niger alone a lake would be required as large as the sea of Aral. The opinion is still more untenable when we consider that the Lake of Semegonda also receives all the rivers which come from Bornoo, Kanga, Begharmeh, Bergoo, and Foor,

and particularly the Misselad, which is of great size, and never dried up, and that all these are brought thither by the discharge of Lake Fittree, their point of union. It is only in this way that the communication of the rivers mentioned by Edrisi can be explained. He gives to the Nile, which surrounds Wangara, a general direction to the west. It must, therefore, be the Misselad, and, as Hornemann says that this river flows out of Lake Fittree, the communication of the waters of the Kaagoo with the Lake of Semegonda, alleged by Edrisi, is confirmed. But the last lake being too small to contain all these waters, one of the two branches which issue from it must run west, the other south or south-west, and fall into the true Niger at a great distance from each other. The true Niger, therefore, can only water the western part of Wangara, and then proceed in its course.

The examination of the nature of the country in Benin furnishes M. Reichard with the most specious of his arguments.

"The countries of Benin, of Owarah, New Calabar, and Calbongo, are," says he, "the Delta of a great river which comes from a great distance in the north-west."

The accounts collected by Nyendaël, Bosmann, Dapper, and the two Barbots, inform us that the Rio Formoso is eight marine miles in width at its mouth. Higher up, it is four, and in still higher situations it is sometimes wider, sometimes narrower. It separates into an infinite number of arms, which spread over the whole adjoining country. A communication can be kept up in boats from one arm to another. There is also, in the interior, a passage by water to the Calabar, easily sailed in a canoe. From the Rio Formoso to the west bank of the Cameroons River, the coast is very low and marshy, and preserves the same character to a considerable distance in the interior. This whole country forms one immense plain, intersected by large, navigable rivers, such as those of Forçados, Ramos, Dodos, Sangama near Cape Formoso, Non, Oddi, Filana, Saint Nicholas, Meas, Saint Bartholomew, New Calabar, Bandi, Old Calabar, and Del-Rey. This last is seven or eight miles broad at its mouth. It preserves this breadth a considerable way up, and comes from a great distance to the north. All these rivers belong to one principal river; for the Rio-del-Rey coming from the north, and the Rio Formoso from the north-east, the two lines which they follow should intersect one another forty or fifty geographical miles farther north, each having a separate course of at least two hundred miles. Then we may reasonably give their course, in a united state, a length of three or four hundred miles. The extent must indeed be almost unexampled, since the Delta, including the projection of Cape Formoso, occupies ninety miles along the coast, and contains so many branches of rivers. In size it far surpasses the Delta of the Ganges.

The physical circumstances of this Delta furnish an auxiliary argument. Composed of mud, and destitute of stones, it must have been formed by periodical inundations from one or more great rivers. We know also from James Barbot, and from Grasilhier, who were eye-witnesses, that all the country about New Calabar and Bandi is every year inundated in the months of July, August, and September. The coincidence of the time of overflow with that which takes place in Wangara and Foor, is too striking not to produce some presumption that the two countries are connected together by the same river. Lastly, capsicum, which is very abundant in Benin, is equally so

in Dar-Kulla, which seems to show that these countries are not separated by any mountain chain; a circumstance rendered very probable by other concurring reasons.

To these arguments of M. Reichard, which appear to us to merit the greatest attention, we shall add another, which has certainly some weight. The Arabs speak of an island called *Oolil*, at the mouth of the Nile of the Negroes, as the only country in Nigritia that has salt marshes or pits,^a and a place from which much salt is exported.^b Another writer makes *Oolili* a city. Now, at the mouth of the Old Calabar river there is an island called the Salt Land,^c which is covered with a layer of sea salt, and the Portuguese charts copied by D'Anville mark a town called *Olil* on the mainland. The distances assigned by the Arabs would place the island of *Oolil* in a great inland lake, but the singular coincidence of the names and of physical characters is not the less favourable to the hypothesis of M. Reichard.

At the very time when this hypothesis appeared to be established, an opinion diametrically opposed to it, and the least probable of all that had been advanced, has been again brought forward. It is nearly that which was given by Pliny the naturalist, who considered the Niger as the principal branch of the Nile, allowing, however, that it frequently disappeared under ground. Some of the contradictory testimonies of the ancients and of the Arabians may be ingeniously combined in favour of this opinion;^d but the only powerful argument is derived from a recent account of a journey performed by water, from Tombuctoo to Cairo. This account has come to us in an indirect channel. Mr. Jackson, British consul at Mogadore, collected from the oral declaration of a Moroccan, who had visited Tombuctoo, various particulars, by means of which, he wishes to demonstrate the identity of the Niger with the Nile.^e

"The Nil-el-Abeed, or Nile of the Negroes," says this writer, "is also called Nil-el-Kebir, or the Great Nile; that of Egypt is called Nil-el-Masr, or Nil-el-Sham, from the Arabic terms for Egypt and Syria. The inhabitants of Tombuctoo, and the whole of central Africa, maintain that these two rivers communicate together, and even that they are the same river. The Africans are surprised when they hear that the Europeans make them two distinct rivers, experience having taught them otherwise.

"In the year 1780, a society of seventeen negroes of Jinnee went from Tombuctoo, in a canoe, on a commercial speculation. They understood Arabic, and could read the Koran. They exchanged their goods repeatedly in the course of the passage, and in fourteen months arrived at Cairo, having lived on rice and other provisions, which they procured in the different towns which they visited. Their report is, that there are 1200 towns and cities, containing mosques or towers, between Tombuctoo and Cairo, on the banks of the Nile of Egypt and the Nile of Soodan.

"They stopped occasionally a few days at several towns to transact business, or gratify inclination or curiosity. In three places they found the Nile so shallow, in consequence of numerous canals of irrigation connected with the main branch, that they could not proceed by water, and there-

fore carried their vessel over land till they found the river broad and deep enough to permit them to proceed by water. They also met with three cataracts, the chief of which was at the western entrance of Wangara. They carried their boat by land past this cataract, then launched into an immense lake or merja, which could not be seen across. In the night they used a large stone by way of anchor. They kept regular watch, as a precaution against the attacks of crocodiles, elephants, and hippopotami, which abounded in many places. When they arrived at Cairo, they joined the great caravan of the west, (Akkabah-el-Garbie,) and went with it to Morocco, and from Morocco returned by the caravan from Akka to Tombuctoo, and from that place to Jinnee, where they arrived after an absence of three years and two months."

Such is the account of the negro travellers. Were we to adopt it without reflection or question, we should believe the identity of the Nile and Niger to be demonstrated. The powerful reasons taken from Ptolemy's Geography, and from the Arabian authors, for the total distinctness of the two rivers; the conclusions forced on us by the accounts collected by Browne, on the course of the rivers Misselad and Bahr-Kulla, (accounts confirmed by the information obtained by M. Seetzen;) and lastly, the extreme improbability of so long a course to any river as that of the Niger and Nile united, over countries which must differ considerably in elevation;—with some minds, all these arguments would not, perhaps, be sufficient to invalidate the evidence of these unknown negroes, who pretend to have actually seen objects, of which we only presume to form conjectures. Must we, on such data, overthrow *in toto* the maps of Ptolemy, D'Anville, and Rennel? remove the mountains to the east of Darfoor? make the Misselad and Bahr-Kulla run backward? We certainly do not yet think so. It appears to us, on the contrary, that the very account given by these pretended negro navigators, presents features which deprive it of any power of disturbing our old geographical creed.

First, These negroes were thrice forced to drag their boat along the land, because the Nile had not sufficient depth. Now, the Joliba, or Niger, is known to be a very large river near Tombuctoo. If it joins the Nile, it ought to gain an immense volume of water, and no canals of irrigation could run it dry. Besides, when once dried up, how does it all at once re-acquire its water?

The three cataracts mentioned may justly induce a suspicion of other interruptions in the course of the rivers navigated by the negroes.

Lastly, If this navigation had no insuperable obstacles to encounter, why should not the Soodan merchants prefer it to the laborious plan of accompanying the caravans across frightful and immense deserts? Mr. Jackson himself replies, because the route by land is more convenient and more expeditious.

This account of the negroes seems, therefore, to furnish only these three results: 1. That there are one or more rivers communicating between the Egyptian Nile and the Niger, in the same way as the Cassiquiari, in America, connects the Orinoco with the Amazons, and as in Norway, near Lesso, two rivers running north and south communicate with each other near their sources.

^a "Salines."

^b Hartmann, Edrisi, p. 29, &c.

^c Terre du sel.

VOL. II.—NOS 65 & 66.

^d See an article of M. Hoffman in the Journal de l'Empire.

^e Jackson's Account of Morocco, last chapter. Annales des Voyages, XVIII. p. 340, &c.

The intermediate rivers are probably to the south-west of Darfoor.

2. A mountain chain coming from Afnoo, or from Kashna, joins that of Melli, and forms a large cataract to the west of Wangara; thus the western Soodan forms one or many basins with scarcely any outlet.

3. The existence of very large lakes in the south of Wangara, may induce a belief that the rivers of the central table-land have really no need of an outlet by the Gulf of Guinea.^a

Having exposed, with all the care and impartiality of which we are capable, the uncertainties which prevail respecting the courses of the rivers of central Africa, we shall endeavour to combine the most precise information contained in the accounts which we possess of the different countries, towns, and nations, of this vast region.

Mungo Park is the first to guide us in penetrating from the banks of the Senegal to those of the Niger. His first journey reaches only to Silla, between Sego and Jinnee: but he collected important information. He was the first European who saw the river Joliba, which is also called the Gulbi.^b The name Joliba signifies the great water. This river, when seen by the British traveller, had a gentle easterly course, glittering with the reflected beams of the rising sun, and was equal in breadth to the Thames at Westminster.

He soon after arrived at Sego, then the capital of Bambarra. This city, built on both sides of the river, consists of four quarters, surrounded by high clay walls. The houses are square and flat roofed, and made of clay; some two stories high, and generally white-washed. Several mosques are also to be seen. The number of inhabitants is estimated, perhaps rather too high, at 30,000. The king lives on the south bank. The inhabitants sail in canoes, which are formed of two large trees, scooped out, and joined at the two ends like the boats of the Foulahs. Immediately round the city there is a little culture, but the clay walls and rude canoes show the backward state of African civilization.

Park gives a description of the Moorish kingdom of Ludamar, where he was detained at Benown, and another called Beeroo, the capital of which is Walet. To the east of the latter lies the celebrated kingdom of Tombuctoo. To the south of these states are the negro kingdoms of Kaarta and Bambarra.

In Ludamar, Mr. Park learned, by a sherif who came from Walet with salt and some other commodities, that Houssa was the largest city he had ever seen, though Walet was larger than Tombuctoo. At Silla, some Moorish and negro merchants informed this traveller that two days' journey to the east was situated the city of Jinnee, on an island in the river; two days' journey beyond this city was found Dibbi, or the Black Lake, in crossing which from west to east the canoes are said to lose sight of land for a whole day. On leaving this lake the river divides into several streams, and ends in two branches which meet at Kabra, the port of Tombuctoo, which is a day's journey to the south of that city. At eleven days distance from Kabra, the river passes to the south of Houssa, which is two day's journey from the Joliba. All the natives with whom this traveller conversed seem to have been ignorant of the course

of this great river beyond that point, and of its mode of terminating. To the east of Houssa is the kingdom of Cassina. The king of Tombuctoo, whose name was Abu-Abrahima, was considered as rich, and his wives and concubines were dressed in silk. The kingdom of Houssa is of greater importance. To the south of the Niger are the kingdoms, or rather districts, of Gotto, and to the west of them Baedoo and Maniana; the inhabitants of the latter have the character of being cannibals. Such is the information given by Mr. Park.

With these particulars are naturally connected those of Mr. Jackson, obtained from oral communications, given by some inhabitants of Tombuctoo. Fifteen days' journey east from this city is found a vast lake called Bahar-Soodan, or the sea of Soodan, on the banks of which there lives a white nation, which in its language imitates, like the English, the whistling of birds; they ride saddled horses, and use spurs. Their face, all except the eyes, is covered with a turban. Armed with swords, bows, lances, and darts, they fight man to man. Their bodies, and those of their horses, are covered over with amulets. These people have decked vessels, forty cubits in length and eight in breadth, built of boards, which are united by twisted cords. These barks carry from one hundred and fifty to two hundred men, and a burden of twenty tons. They have no sails, and are put in motion by forty oars. These white people sail as far as Tombuctoo. In the year 1793 they extended their navigation to Jinnee, on the west of Tombuctoo; but were not allowed to trade. They are neither Moors, nor Arabs, nor Shillooks.^c

According to another passage, these white people, beyond the great lake, are called, by the Arabs, *N'sarrath Christian*, or Christian Nazarites. They are distinguished from a tribe of Jews who live on the frontier of Lemlem or Melly. This account acquires some importance when we compare it with the testimony of Edrisi, who expressly places the Jews in Lemlem,^d which Leo Africanus calls Melly, from the city of Malel.^e These Jews are very probably travelling merchants, known for a century back, on the slave coast, under the name of Maillys or Mallays;^f for, though circumcised, these merchants neither abstained from wine nor other strong liquors. They selected, and killed with their own hands, the animals whose flesh they ate. They came from a country to the north of Guinea, rich in gold, copper, and precious stones.

Mr. Jackson tells us that the city of Tombuctoo^g is situated in the midst of a plain, surrounded with sand hills, about twelve miles from the banks of the Nil-el-abeed, or the Nile of the Negroes, and nearly three days' journey from the frontiers of Zahara. It is unwall'd, and about twelve miles in circumference. It is frequented by all the negro nations, who exchange here the productions of their country for the manufactures of Europe and Barbary. The last sovereign of Morocco, Muley Ismael, had appointed a Moorish governor at Tombuctoo; but at present the city is dependent on the negro king of Bambarra, whose present residence is at Jinnee, the Ginnea of Leo Africanus, and the Genni of some other writers. The king has three palaces at Tombuctoo, which are said to contain an immense quantity of gold. This city is said to be kept under excellent police regulations; its industrious inhabitants,

^a See our chart of Northern Africa. M. B.

^b Abderrahman-Aga, Tripolitan Ambassador, *Nouv. Museum Allem.* III. p. 987.

^c Jackson's Morocco, at the end.

^d Edrisi. Hartmann, p. 37.

^e Leo Africanus, p. 641.

^f Desmarchais, II. p. 273. Snellgrave, p. 80.

^g *Tinbuctoo*.—Jackson.

who are chiefly negroes, are said to be strangers to theft, and emulous to copy the hospitality, elegance, and politeness of the Arabians.

The government never intermeddles with the different religions professed by the people who frequent Tombuctoo; but the Jews are excluded from it by the commercial jealousy of the Moors.

The government of the city is committed to a divan or council, composed of twelve *alemmas*.^a These magistrates, who are learned expounders of the Koran, are nominated by the king, and remain in office only three years. Mr. Jackson, who wishes to induce the English to engage in the Tombuctoo trade, by way of Mogadore, says that the library of that city contains Arabic, Hebrew, and Chaldaic manuscripts, among which are translations of the Greek and Latin authors.^b Other accounts maintain that the Tombuctans make use of characters different from those of the Hebrews and Arabians,^c which is denied by Mr. Jackson or his Moorish authority.

The climate is celebrated for salubrity, and the human constitution very soon arrives at maturity "It is said to be a rare thing to see a young man of eighteen who has not several lawful wives or concubine slaves, the Mahomedan law being here followed, and one who attains the age of twenty, without being married, is not thought respectable."

The Niger or Joliba overflows its banks when the sun enters the sign of Cancer. This is the rainy season. At Kabra the inundation becomes considerable. This wide and rapid river breeds crocodiles and hippopotami. The lands along the southern bank are covered with forests, where huge elephants feed under the shade of trees of extraordinary size and beauty. The soil round Tombuctoo produces rice, millet, Indian corn, and other grain. In the plains, the Arabs of the tribe of Brabesha cultivate wheat and barley. Coffee and indigo grow spontaneously. The latter is in some places cultivated, and produces a fine blue dye, which is employed in dyeing and printing the cotton goods. These fabrics are made at Jimnee and Tombuctoo with whimsical figures. They are used as bed-covers, and are much esteemed for the firmness of their texture, and are sold in Morocco at a high price. The breadth of the wove pieces varies two or three inches; they are sewed together, with thread or silk, so closely and neatly that the interstices are not seen. The cultivators, who are here called *fulah*,^d have a great talent for rearing bees; honey and wax are in great abundance, and large quantities are consumed by the inhabitants.

The gold mines, found to the south of the river, belong to the king, and their produce is deposited in his palaces at Tombuctoo. The people employed in working these mines are Bambarra negroes, who become very wealthy, as all the particles of gold under a certain weight (twelve mizans) belong to them. So very rich are these mines, that pieces of pure gold weighing several ounces are said to be frequently found. It is no wonder then that this precious metal is so little prized at Tombuctoo, and that objects which are of so little value among Europeans, such as

salt, tobacco, and wrought copper, are here exchanged for their weight in gold.

The remainder of western Nigritia was, in the time of Edrisi, divided into two kingdoms, that of Tocroor, and that of Gana. In the first of these, where the people lived on *dourra*, milk, and fish, (an evidence of a moderate fertility of territory,) were found the city of Tocroor, then the centre of the trade of Nigritia, also Berissa, and Sala. The capital of the state of Gana, bearing the same name, was situated on a large fresh-water lake, and was built of chalk. It was the Ta-Gana of Ptolemy, and the Cano of Leo Africanus. This was probably a flourishing empire in the fifteenth century, for, according to Barros, the ambassadors of the king of Benin said to John II. king of Portugal, that "the kingdom of Benin was in some measure in a state of vassalage to a powerful prince in the interior, called Ogane, who was venerated as great pontiff."^e

At present Houssa is mentioned in the situation assigned to Tocroor, and the state of Kashna occupies the place of Gana; but both of them are among the least known countries of Nigritia. With some, Houssa is an immense city; with others, it is the name of a very populous territory, where the economical arts have arrived at high perfection, excellent steel files being in the number of their articles of manufacture.^f The kingdom of Kassena, or Kashna, is known to us only from the accounts of the Tripolitans and Fezzanese. This country, bounding with the territories of Bornoo and Fezzan, seems to be properly called Afnoo,^g and is known by the name of Affanoh, in the capital of Bornoo.^h The chief city, to which the name of Kashna seems more particularly to belong, is five days' journey to the north of the Niger,ⁱ on the road from Fezzan to Zamphra, another large city, which is also represented as the seat of a sultan. On the way to Kashna is Agadez, the chief town of an oâsis, inhabited by the Tuaricks. The vine does not grow so well, nor does the camel thrive equally well, to the west and south of Kashna. The chief productions of the country are gold dust, cotton, a particular kind of rice called *bishna*, numerous monkeys and paroquets. Dressed goat skins, ox-hides, zibet, and musk, are exported.^k The surface is extremely mountainous. On this account, in our map of northern Africa, we place the cataracts of the Niger between the kingdoms of Melli and Kashna.

It is certain that Nigritia is naturally divided into several basins, or table-lands, differing in elevation. According to Leo Africanus, there are districts in the interior where the cold obliges the inhabitants to use fire for part of the year. "At Gago the vines are unable to stand the cold, while the vicinity of Gana is covered with cotton shrubs, and orange trees."^j

Eastern Nigritia contains two countries which are better known than the rest, Darfoor and Bornoo. The first, which was imperfectly known to Leo and Wansleb, has been visited and described by Mr. Browne. An inhabitant of that country, of the name of Mohammed, whom M.

^a Probably an Arabic word, and the same as *ulema*. See our account of Turkey.

^b *Annales des Voyages*, t. XIV. p. 25.

^c Proceedings of the African Association, p. 2. 19.

^d See page 71--2.

^e Joam de Barros, *Asia*, dec. I. liv. 3. ch. 4. Leo Africanus, p. 651. Marmol, III. p. 66.

^f Proceedings of the African Association, p. 2. (London, 1792.) *Elucidations*, &c. by Major Houghton, p. 25--27.

^g Niebuhr, *Nouv. Muséum Allem.* IV. p. 421. Einsiedel distinguishes Kashna from Hatnoo. See Culin, *Voyages en Afrique*, III. p. 436--442.

^h Seetzen, *Annales des Voyages*, XIX. p. 174.

ⁱ Proceedings of the African Association for 1790.

^k Einsiedel, p. 440, &c. &c.

Seetzen met with at Cairo, has also given some curious information respecting it. The *dgelabee* or merchants, after leaving Cairo, first stop at Sioot, and then cross a wide desert, containing a small number of cultivated *oases*. At the end of five days after leaving Sioot, they reach Kargeh, the capital of the Great Oâsis. From this place they take two days to reach Beris, six more to Sheupp, three from thence to Selim, five to Legghyeh, and six to Bir-el-Attroon, and, lastly, ten days to Darfoor, making in all a journey of thirty-seven days.^a

Darfoor^b is watered by the river Bahr-Attaba, which is said to flow into the Nile, and is navigated by small craft. This river, according to the map of Mr. Browne, can only fall into the Misselad, as a mountain chain extends along the east side of the country. Darfoor contains iron, and a copper ore which gives an excellent red colour.^c According to Browne, the copper is bought near the sources of the Abiad. The quarries yield marble, alabaster, granite, fossil salt, and nitre. It labours, however, under a want both of lime and building stone. According to Mohammed's account, snow falls every year, but melts as soon as it touches the ground. One of the largest mountains of the country is called Marra.

The rains begin in the middle of June, and last till the middle of September. The whole aspect of the country is at that time changed, the character of utter sterility being replaced by a pleasing verdure. When the rainy season begins, the proprietors of the land go to their fields with such labourers as they are able to collect. They make holes in the ground, at distances of two feet, where they sow the millet seed, and cover it over with their feet, and thus terminate the labours of seed time. The crop of millet is harvested in the course of two months: wheat requires three. Rice grows spontaneously, and so abundantly that it is little valued, though of superior quality. Dourra and millet are greatly cultivated in Darfoor, but wheat is neglected. Dates are abundant; and, like wheat, are used for the preparation of a spirituous liquor. According to Browne, the vegetation is not greatly diversified, and is chiefly remarkable for the thorny and hard nature of the wood, consisting of the tamarind, the plane, the sycamore, the *nebbek*, and several others, which are mentioned, and briefly described by this traveller; but the tamarind is the only tree the fruit of which is well worth gathering; for even the date bears a small and tasteless fruit. Tobacco seems to be an indigenous production in some parts.

Mr. Brown, who scarcely went out of the capital, represents the animals as few in number, consisting only of well known species. Mohammed says that the mountains and forests abound with game. He mentions different sorts of gazelles, wild boars, buffaloes, and apparently a sort of deer with which we are not acquainted.^d Darfoor contains the elephant and the rhinoceros, and numerous giraffes, which are called *ourr*, in the language of the country.

The skins of elephants, rhinoceroses, and hippopotami, are used for making whips, which are sold in great numbers at Cairo. Bees and honey are in abundance.

The Darfoorians, who ought to be called Foorians,^e have, according to Mr. Browne's observations, very thick, coarse

skins, but not particularly black. They are brawny and muscular. Their eyesight is excellent. There are few bear-eyed persons^f among them, and none blind. Their teeth are white and durable, being generally entire till a very advanced age. The Darfoor negroes differ in features from those of Guinea; but their hair is generally short and woolly. They are cowardly, dirty, thievish, and deceitful. They are patient of hunger and thirst. They use no baths, but apply a greasy paste to their skin. Commerce is conducted by barter, money being unknown. Polygamy is carried to great extravagance, and the intercourse of the sexes subjected to little regulation. Circumcision and excision are practised among them. They seem to use the Berber language, but understand Arabic. According to Mohammed, all the inhabitants of the country profess the Mahometan faith. They have the Alkoran, and many among them have their children taught to read that work, and to write in Arabic. This language is exclusively used for epistolary correspondence, which, however, is very rare among them. With the exception of the name of the Deity, all the terms used for metaphysical objects, as well as the generality of those which are connected with political offices and arrangements, are borrowed from the Arabic. The government is despotic. The sultan or sovereign engages in trade, levies duties on all the goods, and is furnished annually with a quantity of millet, from every village, which is collected by his slaves. According to Browne, there are no more than twelve towns in the whole of Darfoor, and each of these contains no more than 5000 or 6000 inhabitants. Cobbe, the metropolis, is more than two miles long, but very narrow, and its population does not exceed 6000. Mohammed calls the sultan's place of residence Tandely, and gives the names of more than fifty towns.

A great desert, called Dar-Kab, separates Darfoor from Kordofan. Mohammed mentions a very interesting country to the south-east, the empire of the Shillooks, which lies west from Abyssinia, and twenty days' journey south from Darfoor. Their sultan is one of the most powerful among the negro princes. The territory is very mountainous, and watered by a great number of rivers, among which Mohammed mentions the Bahr-el-Abiad, Bahr-Indry, Bahr-el-Harras, and Bahr-Esrak, all of which take their rise in the country of the Shillooks, and afterwards join the Egyptian Nile. The Bahr-el-Abiad is the great western branch of the Nile, and its origin should be considered as the source of the Nile, which Father Lobo and Mr. Bruce wished to find in Abyssinia. The Shillooks are negroes and idolaters, and go quite naked. Their only arms are the bow, the arrow, and the lance. The Bahr-el-Abiad passes through the middle of their country. The largest mountains are the Djibbel-el-Djinse, and the Djibbel-el-Temmaroo, which are frequently covered with snow. They form apparently a part of the Mountains of the Moon. The Shillooks are constantly at war with the Abyssinians, but maintain commercial relations with the people of Darfoor; and the traders of the two nations often visit one another. By washing the sand of the rivers they obtain gold, which is kept in the quill-tubes of a huge bird, called in Egypt the *sakgar*, and in Darfoor the *doulh*. This bird,

white like silver, softer, and less brittle.—*Ed. Encyc.* The red ore is probably the red oxyd.—P.

^a *Annales des Voyages*, t. XXI.

^b "Darfour," Darfur; (*Dar*, a kingdom, and *Fur*, a deer.)

^c The copper is of the finest quality, resembling that of China, and appearing to contain a portion of zinc. The Chinese zinc-copper is

^d *Annales des Voyages*, XXI. p. 155, &c.

^e Furians.

^f "Myopes," short-sighted, or with defective sight.

which is probably a sort of condor, possesses immense strength, and even attacks and kills asses. Giraffes are also found here in abundance.

Mohammed himself had visited this country. The capital city and residence of the sultan is called Bahr-el-Abiad, being situated on the river of that name. He says that it is a commercial place, and contains a great number of remarkable buildings, but he is not quite consistent in his accounts.

Another and better informed negro described to M. Sætzten the Dar-el-Abiad^a as a large hilly country, full of rivers, and inhabited by real savages. The name seems to point it out as the country which gives rise to the Bahr-el-Abiad, and where, in the rainy season, it probably communicates with the rivers which join the Niger.

The information furnished by Mr. Browne applies to a direction somewhat different, viz. the south-west.

At a distance of three days' journey to the south of Cobbe, there are copper mines; and seven days' journey and a half beyond these is the Bahr-el-Abiad. To the west of this is the river Koollah,^b the banks of which, according to the information of Mr. Browne, abound with pimento trees. The boats are forced along by poles and two oars each. Large are the trees, that one of them may be scooped out into a canoe fit to carry ten people. The natives of Koollah are partly black and partly red or copper coloured. The country is chiefly frequented by the djelaby or merchants of Bergoo and Darfoor, who come hither to buy slaves, the slightest offence being here punished by the sale of the delinquent to foreign merchants.

To the west of Darfoor, is a country which the natives call Mobba, the Arabs Bar-szeleh, and the Foorians Dar-Bergoo, known to us from the reports of two natives,^c who agree on most of the facts. Mobba is to the west of Darfoor, and to the south-east of Bornoo. Vara, the capital, is thrice as large as Bulak. The town itself contains many earthen houses, but in the neighbourhood, conical cabins, made of reeds and canes, are the only habitations.

The sultan's seraglio is an immense brick building, and contains the only mosque belonging to the place, which is kept constantly lighted with lamps. The country is full of mountains and valleys. "There are no rivers, properly so called," says one of the native reporters, "but rain torrents, which, when dried up, leave considerable lakes or pools. The largest of these torrents is between Mobba and Bagirma, and is called Bahr-el-Zafal." The other native says, "that at three days' distance west from the city, there is a large river, running from south to north, broader than the Nile, and, like this last, subject to periodical inundations, and called in the Mobba language Engy," (their word for water.)

The Mobba country produces soda, which is exported to Cairo; rock salt of different colours; and another salt not accurately known. Two sorts of iron ore are found in the beds of the torrents, one in the form of sand, the other in that of a stone, and from which knives and needles are manufactured. There are no other metallic substances. Limestone is rare. But this country is covered with trees, among which are different sorts of sycamores,

palms, and the *Acacia vera*. Every kind of poultry is found here, as fowls, pigeons, wild geese. There are also many bees, scorpions, and locusts, the last of which are used as food. There are plenty of horses, dogs, cats, buffaloes, and gazelles. The large ponds created by the rain water harbour numbers of crocodiles.

The rainy season lasts seven or eight months. The dry season consequently only four or five. Ice is unknown; snow and hail are very rare. The chief culture is that of dourra and millet. There is neither wheat, barley, nor pulse.^d Cotton is abundant; rice is grown every where, and the gummy acacias are frequent.

Most of the inhabitants are Mahometan negroes, some of whom have learned to read and write the Arabic language. The children of both sexes are circumcised. The women go unveiled. The arms of these negroes consist of sabres, lances, bows and arrows, and bucklers. The few muskets which they have come from Cairo, as well as lead, gunpowder, and cuirasses. The plague is very rare in this country; but the small-pox produces great ravages; and diseases attached to libidinous conduct are very common.^e

To the west of Mobba, all our accounts agree in placing Baghirmah,^f a state now dependent on the powerful mussulman emperor of Bornoo, as is shown by the following anecdote, related by Hassan, an inhabitant of Mobba.

The sultan of Baghirmah had married his own sister, an action so contrary to the law could not remain concealed, but came to the knowledge of the sultan of Bornoo, who, in a paroxysm of wrath, ordered him instantly to relinquish that incestuous connection, under the penalty of the vengeance of Allah and the emperor. The sultan of Baghirmah not suffering himself to be intimidated, sent back the sultan's letter, writing on the back for an answer, "that the custom of marrying a sister had existed long before the prophet, and that he saw no reason why it should not exist after him." An answer so laconic from a dependent raised the emperor's passion to madness. He immediately ordered the vassal sultan of Mobba to enter the Baghirmah country with an invading force, a commission which the latter prince executed, and having vanquished the rebel sultan, sent him prisoner to Mobba. Hassan did not know the subsequent fate of that prince; but the Baghirmah country had been for four years^g attached to the territories of Mobba.

It is very probable that, at the beginning of the eighteenth century, the sultan of Baghirmah ruled over the adjoining countries, including Bornoo, for his place of residence is called Karna; but according to the accounts collected by Father Sicard; the city of Karneh, situated on a great river communicating with the Nile of Egypt, was the capital of the state of Bornoo.^h The river was called Bahr-el-Gazal, and the canal of communication between the Niger and Nile, says Sicard, is the Bahr-el-Azurak.

Other accounts make the Baghirmah country contain some inhabitants professing the Christian religion,ⁱ coinciding with the negro tradition, which states, that to the east of Houssa, beyond a great lake, there is a nation of Naza-

^a "Dar-el-Abbid."

^b "Kulla."

^c *Annales des Voyages*, XXI. p. 164.

^d "Lentilles."

^e Browne's Journey to Darfoor.

Bagirma, Baghermeh, Begherme, Begarme.

^g Reckoning from the time when the information was given. This volume of the original (IV) was published in 1813.—P.

^h *Nouv. Mém. de la Compagnie de Jesus dans le Levant*, II. p. 186.

ⁱ Niebuhr, after Abderrahman-Aga. *Nouv. Museum. Allemand*, III p. 981.

renes. The inhabitants of the country of Andam also pass for Christians, and are said to have pointed teeth. The same shape of the teeth is common among the Jemjens, who are pagans and cannibals. The Kendil nation has long hair.

Wangara, or Vankara,^a a marshy country, surrounded either by different rivers, or different branches of one great river, and rich in gold dust, is surnamed, in Arabic, Belad-el-Tibr, or the Country of Pure Gold, and is still less known to us than the preceding countries. Here Edrisi places among other cities those of Ragbil and Semegonda, on the borders of a fresh water sea; but luckily for those who are fond of disputes, the Arabic term, which is translated sea, also signifies a great river.^b

We shall conclude our account of Nigritia with a description of the empire of Bornoo,^c respecting which M. Seetzen has collected some interesting information from a native.^d This state seems at the present moment to comprehend several kingdoms once independent. We have just seen that the princes of Mobba and Baghirmah depend on it. Among other vassal countries, we hear of Phallateh, which is inhabited by a colony of Senegal Foulahs or Fellahs; the Kotkoo, who seem to be the Kookoo of Edrisi; Kanem, in which the city of Matsan seems to correspond to that of Mathan, which at one time was its capital, or rather the residence of a prince who for a short interval ruled over these countries.^e The Bornese pretend even that Fezzan, Afnoo, Kishena, probably Kashna, Darfoor, and even Sennaar, acknowledge the supremacy of their emperor.

The eastern part of the territory of the empire of Bornoo contains some mountains. About three miles from the capital, there is a river, called Halem, as large as the Nile, on which there is a number of vessels with sails and oars formed of planks, fastened with iron nails. Abdallah could not inform M. Seetzen either of the source or the termination of this river, but he assured him that it ran from south to north, and that it overflowed its banks in the rainy season like the Nile. If we consider this account as correct, we must give the river of Bornoo a direction opposite to that given it in our maps. In the towns of Bornoo well water is commonly used, and is said to be of excellent quality.

The soil consists of a soft sand, which renders the shoeing of horses in this country unnecessary, but without irrigation it cannot be made productive. Along the side of the river, black chalk^f is found; there is likewise some pyrites and potters' clay. According to the Tripolitan Abderrahman-Aga, the sultan receives from the mining operations immense quantities of gold.^g Leo Africanus asserts that, at the court of Bornoo, the stirrups, spurs, dining plates, and even the chains of the hunting dogs, were of pure gold.^h But the native Abdallah says, that no ore of gold, silver, or copper, has been discovered, though there are some iron mines now worked. These testimonies may, however, be reconciled. The gold, though unknown as a product of Bornoo Proper, may

come from Wangara, one of its dependencies. The merchants of the province of Affanoh bring rock salt, which has a slight degree of bitterness. A good salt is extracted from the ashes of a thorny plant by lixiviation. A very distant desert produces two varieties of soda, one white, and the other red.

The vegetable kingdom is very rich, containing abundance of fruit trees, and forests of wild timber. Date palms are in abundance. According to Abdallah, there are no citrons nor pomegranates, though other accounts mention these among the trees of the country. The *szoolidih* surpasses all other trees in height and thickness. Its fruit is not an article of food, but yields an oil which is employed as a medicine.

The country produces grain, but none of the leguminous species cultivated in Egypt. Rice comes up spontaneously in great abundance after rains; for, says Abdallah, there is much rain in that country, from which, and from the action of the cold, men often die!ⁱ The sugar cane is there unknown. The bitter *Ngoro* nut, perhaps the areca, comes from Kanem and from Affanoh.

Bornoo possesses all the domestic animals of Egypt. The forests contain a great quantity of monkeys. Abdallah told M. Seetzen that women were particularly exposed to annoyance from these animals, on which account they never go through the forests except in large parties. Numerous giraffes browse the leaves and young branches of the trees. Lions inhabit the deserts. The skin of the hippopotamus is used for making whips, and his tallow for candles. Tapers are made from wax. The horns of the *glembo*, which seems to be a wild goat,^k furnish war trumpets. The rivers swarm with crocodiles. Ostrich feathers form an article of trade. The *matzakweh*, called the king of birds on account of the incomparable beauty of his variegated plumage; the *adgunon*, the largest bird with the exception of the ostrich, which, however, is always afraid of it; and, lastly, the *knilodan*, a carnivorous quadruped stronger than the lion or the tiger, are animals which still remain to be subjected to authentic and scientific examination.

Locusts fly in numerous swarms: they are of two kinds, one of which is fried with butter in a pot, and used as food. There is abundance of wild honey in the trunks of the trees. The guinea-worm, *Vena medinensis*, is very common; it appears in every part of the body.

According to the inhabitants of Mobba, the capital is called Akumbo. It has also the name of Birni, in the language of the country. "I have always heard people speak of Cairo and Grand Cairo," says Abdallah, "but it is *harra* (a trifle) in comparison of Bornoo." He says, "that a person could not go from one end of it to another in a day. If a child should lose itself in the city, it loses its parents for ever, as it is impossible to find them again." This description is, to a certain extent, confirmed by other testimonies. The Tripolitans allow that Bornoo or Barni has 10,000 houses, and is much larger than the capital of their country.^m Bornoo has a great number of gates and thick

^a "Ouagara, Wangarah, Vankarah."

^b Hartmann's Edrisi, Africa, p. 50—52.

^c "Bournou," Bornou.

^d Annales des Voyages.

^e D'Anville, Hist. de l'Academ. XXVI. p. 69. Leo, p. 56. Cuhn III. p. 437.

^f "Pierre noire."

^g Nouv. Mus. Allemand, III. p. 386.

^h Leo, p. 658.

ⁱ The night of Dec. 26th, 1823, on the road from Bornou to Sakatoo, the water in shallow vessels was crusted with thin flakes of ice, and the water-skins were frozen as hard as a board. This was on an elevated clayey plain.—Clapperton.—P.

^k The *bouguetin*, ibex or wild goat of the Alps.—P.

^l Birnie.—Denham.

^m Niebuhr, Nouv. Mus. Allem. p. 981. 1000. Einsiedel, in Cuhn, III. p. 437.

walls built of stones and mud, and provided with steps on the inside. The mosques are adorned with very high towers. The dwellings of the grandees and the rich are built in a very solid manner of stone, in a similar style to the houses of Cairo, but higher. The great mosque contains the principal school, which Abdallah compared to the academy in the mosque of El-Ashar at Cairo; that, besides the Koran, there are several books of science for the use of the numerous scholars, who learn there to read, to write, and to calculate. The paper which is wanted is brought from Egypt, Tripoli, and Tunis. The students are supported at the sultan's expense.

The reigning dynasty, in the time of Leo Africanus, was of the Arab or Berber tribe of Berdoa. The same family seems still in possession of the throne; for, according to Abdallah, "the sultan is not black, but of a deep brown. He never eats bread, but only rice, being persuaded, by virtue of an old prophecy, that the use of bread would be the cause of his death." The government is only hereditary in the male line. The sultan keeps four lawful wives, who are natives of Bornoo, and a crowd of female slaves.

In the time of Leo, the Bornese, living without any positive religion, or at least without any form of worship, had their wives and children in common.^a They now profess the Mahometan religion, and circumcision in both sexes is the universal law. There are also some free Christians, who keep certain holidays, but have no church. The country contains no Jews. Negroes and Abyssinian

^a Léon, p. 656.

^b The recent travels of Denham and Clapperton have contributed more to settle the geography of central Africa, than all which had preceded them. They crossed the desert of the Tibboos from Fezzan to the N. shores of Lake Tsad in about 14° N.; then advanced along the W. shores of the lake, and crossed the Yeou, a large river from the westward, after which they arrived at Kouka, the residence of the sheikh of Bornou. From this point they made excursions, S. to the mountains south of Mandara in about 9° N.,—E. to the Shary, a large river flowing from the S. into Lake Tsad, and along the S. shores of the lake eastward,—and W. to Sackatoo, the capital of Soudan. These excursions enabled them to ascertain the position and present state of two of the most powerful kingdoms in central Africa. That of Bornou lies along the W. and S. W. shores of Lake Tsad, and extends W. towards the Fellata territories. It is bounded N. by part of Kanem and the desert, S. E. by the Shary, which divides it from Begharmi, S. by the kingdom of Mandara, and W. by Soudan. The native Bornouese are Negroes, but there are tribes of Arabs scattered over the country. This kingdom was recently overrun by the Fellatas, but the present sheikh, originally a *fighi* (teacher) in Fezzan, drove them out by the aid of the Kanemboos, and has now established a power second to none but the Fellatas in central Africa. He restored the former family of sultans, and has only retained the title of sheikh. He professes to rule in the name of the sultan, although his power is absolute, and that of the sultan merely a shadow. The principal towns in Bornou, are Kouka, the residence of the sheikh, in lat. 12° 51' N. long. 13° 47' E., nearly on the meridian of Mourzouk; New Birnie, the residence of the sultan; and Angornou, a large trading town, near the lake, S. E. of Kouka. Old

slaves are numerous. A very effectual method is practised for converting them to the Mahometan religion; which is to beat them till they learn to repeat the creed, "There is no God but God, and Mahomet is his prophet." This profession once uttered concludes the business. Several negro slaves brought from the Banda country have the teeth much pointed; the wounds which they inflict in biting are difficult to heal; and their masters take the precaution of blunting them with a file.

M. Seetzen was much surprised to learn, that the Sultan of Bornoo had many French slaves, some of whom even preserved their European dress. They have established for him a foundery for brass cannon, which he uses in his wars with the pagan negroes to the south of the empire.—We are almost tempted to conceive a suspicion, that this Sultan follows, in regard to European travellers, the policy of the government of Habesh, which we know puts every possible obstacle in the way of their return to their own country; so that it is not impossible that intelligence may yet be received of Mr. Hornemann.

The trade of Bornoo is very active, and always brings to it a multitude of foreign merchants. The chief business is transacted by the Tunisians; but the Tripolitans, the Egyptians, the Fezzanese, and the Affanoh negroes, bring a large quantity of goods. Rings of gold, silver, and brass, are manufactured in Bornoo; also needles, coverlids, and various stuffs. There are some lapidaries acquainted with the art of polishing and cutting stones, and engraving seals.^b

Birnie, the former residence of the sultans, on the Yeou, was destroyed by the Fellatas. Lake Tsad is a very extensive body of fresh water, reaching between 200 and 300 miles from N. to S. but its eastern boundary is not determined. It receives the Yeou from the W. which rises in the granite mountains of Soudan, and is not the Niger, and the Shary from the S. It is not known whether it has an outlet, or whether it communicates with the Nile or Niger.

West of Bornou is the kingdom of Soudan. It extends S. E. to the mountains S. of Mandara, and W. to the Kowara or Niger. Its capital is Sackatoo, a large and populous city, although founded in 1505. It is in lat. 13° 4' 52" N. long. 6° 12' E. on a branch of the Kowara. The sultan Bello is represented as a learned and an intelligent man. Kano, in lat. 12° N. long. 9° 20' E., is the great emporium of Haussa, (the E. part of Soudan,) and is frequented by Moorish merchants, who bring many articles of European merchandize. Clapperton purchased there an English green cotton umbrella. Kashna, (12° 59' N.) the former emporium of Haussa, is now mostly in ruins. The Fellatas are a copper coloured race, speaking a peculiar language, and extending from Djinnie E. to Bornou. They are not negroes, but are said to resemble the Moors. They are the ruling people in Soudan, and were but recently driven out of Bornou, which they had conquered.

The country round the shores of Lake Tsad is low and sandy, or marshy. Most of Bornou is level and sandy; but Mandara, to the S., and Haussa, to the W., are hilly and mountainous. The central ridge is granite, skirted by sandstone. These discoveries have not settled the course of the Niger, but have rendered it highly probable that it flows into the Gulf of Benin.—P.

BOOK LXVIII.

ON THE INHABITANTS OF NIGRITIA, SENEGAMBIA, AND GUINEA.

THE numerous black nations on the north of the equator, whose countries we have surveyed, in so far as the present state of our knowledge permitted, present the historian, in the great outline of their manners, with a vast subject of meditation.

The physical properties of the country perpetuate in all those nations that indolent levity, and childish carelessness, which seem innate qualities of the negro race. Twenty days of work in a year are sufficient, in most of these countries, to secure the crops of rice, millet, maize, yams, and manioc, that are required for his frugal repast. His gross taste gives him every where the readiest resources. The flesh of the elephant, even when full of vermin, does not prove repulsive to his sturdy stomach.^a He is fond of the crocodile's eggs, and even of its musky flesh. The monkeys are very generally used as food.^b Even dead dogs and putrid fish give no disgust. Roasted dogs even figure as an exquisite treat at their great feasts. But the negro rejects sallad, because he will not so far imitate the herbivorous animals.^c The preparation of thick, juicy, and well seasoned soups, which compose his cookery, requires very little care. An easy manufacture gives him his palm, or banana wine, and his millet-beer, which form his ordinary drink. Europe furnishes the negroes of the sea coast with those pernicious spirituous liquors which make them pass at once from a state of intoxication to a state of slavery. Little labour is required in providing for their dress. The cotton grows at their feet without culture. From this the females prepare the stuffs necessary for their families, and dye them with indigo, a production likewise spontaneous. The negro's cabin costs equally little care. Some trunks of trees, scarcely chipped, or in any way shaped, some branches stripped of their bark, a little straw, or a few palm leaves, are his whole materials; to connect them in the form of a cone, is the amount of the art which he requires. This simple architecture is dictated to him by the climate and the violence of the annual rains. It is only on the Gold Coast, or on the banks of the Niger, that the example of the Europeans and the Moors, has taught the negro, that a flat roof, if solid, may be made proof against rain.

The towns are only great collections of such cottages. There are no public buildings, even among the tribes which live under a sort of republican government. The most that they ever have is a large shed, open on all sides, called a *boorree*, for conducting their public deliberations, denomi-

nated, from a corruption of a Portuguese term,^d the *palaver*.^e The palaces of their chiefs are only distinguished by the great number of cottages of which they consist.—The furniture of the poorer sort is often confined to two or three calabashes; the rich have some fire-arms to show off; the sovereigns, who adorn their dwellings with human skulls, and jaw-bones, have stone-ware,^f and carpeting of European manufacture. But these monarchs, whose distinguishing pomp consists in walking in slippers, under the shade of an umbrella, have sometimes a piece of massive gold for a throne.

Mr. Isert had remarked, as a strong proof of the indolence of the negro, that he has never tamed the elephant, an animal so common in Africa, and so capable of becoming the useful and intelligent auxiliary of man. The inhabitants of Begombah, an unknown country in the interior of Guinea, are said to have made some attempts to employ the elephant. The negro in general is not a courageous hunter, nor does he cause his dominion to be felt among the numerous wild animals which share with him his fertile country. He is more active, more skilful, and more successful, in fishing. Both by swimming and by rowing, he braves the stormy waters, and carries home his nets loaded with immense booty. But he quickly relapses into his habitual indolence, and the very abundance of this resource proves an obstacle to the development of his natural talent, for the pursuit of industry.^g The existence of this talent is shown in the fabrication of stuffs, coverlids, sails for vessels, pottery, tobacco pipes, and wooden utensils, manufactures which are very general among this people. We are informed that even at Bambarra, Tombuctoo, and Bornoo, the art of weaving is carried to considerable perfection. The talent of the negroes is also remarkable in the skill of their blacksmiths and goldsmiths, who with a few rude instruments, make swords, axes, knives, golden braids, and many other articles. They can also give steel a good temper,^h and reduce gold wire to a great degree of fineness.ⁱ The precious stones are cut among the people of Whidah.^k

All this industry, indeed, is contracted by the paucity of wants, and the best negro artizan never thinks of working more than is requisite for earning his daily subsistence. Strangers to our feelings of avarice and ambition, the Africans consider life as a brief interval, which it is incumbent on them to enjoy to the utmost. They wait for sunset to begin the giddy dance, which they keep up the

^a Muller, *Descript. de Fetu*, p. 163.

^b Labat, III. p. 302. Atkins, p. 7. p. 152. Moore, p. 77.

^c Isert, p. 209.

^d *Palavra*, speech.

^e Isert, p. 77. Rœmer, p. 179.

^f "Vaisselle," dishes in general.

^g Labat, II. p. 334. Isert, p. 71. 206. Adanson, &c. &c.

^h Labat, II. p. 304.

ⁱ Muller, p. 274.

^k Isert, p. 177.

whole night, animated by the hoarse sounds of the ivory trumpet, and the beating of drums, mingled with the cadence of various guitars and harps. Young and old, all take their part in the nightly festivity. From one village the sound of their songs and concerts is passed responsive to another. These pastoral scenes will not surprise those who have read the English verses written by some emancipated negroes, which are far from being deficient in sentiment and fancy. Gaming has charms in the eyes of the African more potent than those of the dance. But the ingenious combinations of the *oori*, more varied than our game of draughts, only interest the women, while the men court the violent mental agitation attending on games of blind chance, with as much keenness as we find prevailing among many young persons of fashion in Europe.

The negroes, amidst all the varieties of their colour and conformation, seldom labour under bodily defects. Their health is kept up by a simple style of living, exercise, and perspiration; and among some negro nations, if not all, infants born with any defect are destroyed.^a The negroes do not seem to have inherited the privilege of the ancient Macrobian. The length of their lives, at least in Senegambia and at Sierra Leone, is not equal to ours.^b Instances of longevity are very common among the negroes transported to the colonies,^c which must belong to some tribes more favoured by nature. Fevers, diarrhoea, small-pox, leprosy, a variety of syphilis, called the *pian*, and the Guinea worm, are the most common scourges of the life of the negro.

The thin beard of the negroes partakes of the woolly character of their hair, yet in pruriency of temperament, and fecundity of population, they excel all other races of mankind; and polygamy is carried to a greater excess among them than in any other part of the world.

There are some nations which give their teeth a pointed shape by filing. But Isert asserts that he has seen some negroes whose fore teeth were naturally so formed. Some among them boast of being cannibals, and, to prove the fact, bite off a piece of flesh from the arm of a bystander.^d

The practice of making incisions in the skin prevails, in various forms and degrees, among all the negro nations which have preserved their primitive character. The Mandingos have vertical cuts over their whole body.^e The same sort of mark is found among the Akras, the Watiehs, the Tamboos, the Mokokos, and the Eyeos of Guinea,^f and among the inhabitants of Bornoo, Darfoor, and Mobba;^g but the situation and number of these incisions vary. The people of Darfoor are marked in the face and the back, those of Mobba in the neck.^h The Mokokos mark their bodies on the stomach with figures of trees and foilage. The Calabarsⁱ mark their foreheads with cuts in a horizontal direction, the Sokkos with two crossed lines. The Subaloas^k cover the cheeks and the whole body with curved lines, crossing one another.^l The Mangrees mark themselves under the eyes with a figure resembling the letter V inverted. Some tribes near Sierra Leone have the art of making their skin rise in elevated marks like basso relievos.^m

Circumcision is detested by the Foulahs, but becomes a religious observance among the Mandingos, who extend it to both sexes,ⁿ and is also practised by some negro nations of idolaters, such as the Akras on the Gold Coast, the Dahomeys, the Mokokos, the Watiehs, the Calabars, and the Ibbos.^o In Benin the females are mutilated, while the Dahomeys, like the Hottentots, resort to the unseemly practice of producing by artificial means a sort of apron by the elongation of the skin in front of the body.^p

Any thing that strikes the irregular imagination of the negro becomes his *fetish*, or the idol of his worship. He adores, and in difficulties consults a tree, a rock, an egg, a fish-bone, a date-stone, a horn, or a blade of grass. Some tribes have one *fetish*, which is national and supreme. The following instance of the power of superstition, and the address with which it was turned to account by an enemy, is mentioned in the work of M. Mollien. M. Ribet, within the present century, at the head of twenty-five European soldiers, and 400 Senegal negroes, had, in an act of reprisal, plundered all the Foulah villages on the river side. On arriving at Gaet, a large town, no person appeared to oppose them: the inhabitants were all concealed behind their palisades, and thus entrenched fired on the enemy. Two field-pieces, in the mean time, by which M. Ribet was accompanied, made incredible havoc among the Foulahs; but at the moment when he thought victory certain, a bull, which they had kept for the purpose, leaped over the palisades, and furiously rushed upon his men. A divinity descending from heaven could not have produced a more extraordinary effect. The negroes of the Senegal, persuaded that their lives depended on that of the bull, stopped the French soldiers ready to fire at him, exclaiming, that if he were slain all sorts of misfortunes would overwhelm them. The stratagem was completely successful. The negroes dispersed, and fled in disorder to the vessels, while the twenty-five Europeans, disdainful to run away, fell victims to their bravery. In Whidah a serpent is regarded as the god of war, of trade, of agriculture, and of fertility. It is kept in a species of temple, and attended by an order of priests. Some young women are consecrated to it, whose business it is to please the deity with their wanton dances, and who are in fact a sort of concubines to the priests. Every new king brings rich presents to the serpent.^q In Benin, a lizard is the object of public worship; in Dahomey, a leopard. In the neighbourhood of Cape Mesurado, the offerings of the people are presented to a more beneficent deity, the sun.^r Some negroes fashion their fetishes into an imitation of the human form. They seem in general to believe in two ruling principles; one of good, and the other of evil.^s

In their funerals, which are attended with much howling and singing, a very singular piece of superstition prevails. The bearers of the body ask the deceased, if he has been poisoned or enchanted, and pretend to receive a reply by a motion of the coffin which is no doubt produced by one of their boldest jugglers. The person whom the deceased accuses of having killed him by enchantment is at once condemned to be sold for a slave. The interments of

^a Muller, *Descript. de Fetu*, p. 184.

^b Adanson, *Bosmann*. Curry, *Observations on the Windward Coast*.

^c Oldendorp, p. 407. Muller, p. 280.

^d Isert, p. 196. Rømer, p. 18.

^e Schott, in *Forster and Sprengel, Beytræge*, I. 56.

^f Oldendorp, I. p. 291.

^g *Annales des Voyages*, XXI. p. 184.

^h "Nuque," back of the neck.

ⁱ "Kallabaris."

VOL. II.—NOS. 65 & 66.

^k "Sabalous"

^l Isert, p. 233. Oldendorp, loc. citat.

^m Matthews, p. 118.

ⁿ Labat, IV. 350.

^o Oldendorp, I. p. 297.

^p Dalzel's *History of Dahomey*, p. 91.

^q Desmarchais, II. p. 180. Oldendorp, p. 328.

^r Desmarchais, I. p. 118.

^s Muller, p. 44. Rømer, p. 42.

princes occasion scenes of a much more deplorable nature. The blood of numerous human victims is shed on the royal tomb. That custom prevails among the Aminas, the Dahomeys, the Beninese, the Ibbos, and perhaps many other nations.^a

Yet despotism is not the only or the chief misfortune of Africa. The states of Benin and Dahomey, the Yolofs and the Foulahs, enjoy at least internal tranquility under their almost absolute monarchs; while in Bambook, around Sierra Leone, and on the Gold Coast, the principal village chiefs form, in conjunction with an elective monarchy, turbulent and disastrous aristocracies. As the authority of each increases in proportion to the quantity of gold and the number of slaves which he possesses, the people of distinction^b eagerly exert themselves to become rich by laying waste the villages of their rivals. Hence those perpetual petty wars which desolate almost all the negro countries, and which have for their leading object, the capture of a number of unfortunate beings who are sold to the Europeans. The laws, preserved only in the memories of the people, punish all disorder with severity; but in a state which is a prey to anarchy, the execution of them is precarious, and the absolute chiefs apply them to the cruel purpose of increasing their stock of slaves. In general, the most trifling theft is visited with this doom. Private individuals who sue for a debt, have on the other hand the greatest difficulty to obtain their due right. Pleaders of a bullying and intriguing character display an astonishing degree of art at the *palavers*, or judicial assemblies. A merchant who cannot obtain justice, often pays himself by causing the children or relations of a dishonest debtor to be carried off and sold as slaves.^c

It would be for the interest of Africa were the great empires of Bornoo, Houssa, and Bambarra, consolidated. They might then become the foci of a civilization, at least as far advanced as we find that of Asia. Unfortunately, the state of the country seems destitute of any elements of stability. The changes of the capital of Bornoo, which have created so many uncertainties among geographers, probably arise from the circumstance, that out of a number of hereditary sultans, each master of a single province, sometimes one, sometimes another, attains, by election or by conquest, the exercise of the supreme power. There are two causes, in particular, which contribute to prevent Nigritia from attaining a stable condition. One is the vicinity of the Moors, a restless race, addicted to plunder, and ill capable either of founding or establishing an empire;^d the other is the vast number of nomadic tribes of Arabs, who, protected by their state of pastoral poverty, defy even the authority of the potent monarchs of Bornoo.^e

The pride of the petty lords of Africa is equal to their barbarous and disgusting ferocity. While we shudder to see them seated on their thrones of gold, surrounded by human skulls, we must smile on hearing the pompous language of princes, whose largest armies scarcely amount to 10,000 men.

The Danes have furnished us with a portrait of the king of the Ashantees, whose name is Opocoo. This monarch was seated on a throne of massive gold under the shade of an artificial tree with golden leaves. His body, extremely lean, and inordinately tall, was smeared over with tallow,

sprinkled with gold dust. A European hat bound with broad gold lace, covered his head; his loins were encircled with a sash of golden cloth. From his neck down to his feet, cornelians, agates, and lazulites, were crowded in the form of bracelets and chains, and his feet rested in a golden bason. The grandees of the realm lay prostrate on the ground, with their heads covered with dust. A hundred complainers and accused persons were in a similar posture; behind them twenty executioners, with drawn sabres in their hands, waited the royal signal, which generally terminated each cause, by the decapitation of one or other of the parties. The Danish envoy, passing a number of bloody heads, recently separated from the body, approached the throne. The magnificent flaming prince addressed him with the following most gracious questions:—"I would willingly detain thee for some months in my dominions, to give you an idea of my greatness.—Hast thou ever seen any thing to be compared with it?"—"No! lord and king, thou hast no equal in the world?"—"Thou art right, God in heaven does not much surpass me!"—The king drank some English beer from a bottle, which he immediately handed to the Dane; the latter took a little, and excused himself, by saying that the liquor would intoxicate him.—"It is not the beer that confounds thee," says Opocoo, "it is the brightness of my countenance, which throws the universe into a state of inebriety." This same king conquered the brave prince Oorsooeh, chief of the Akims, who slew himself. He caused the head of the vanquished prince to be brought to him, decked it with golden bracelets, and, in presence of his generals, directed to him the following speech:—"Behold him laid in the dust, this great monarch, who had no equal in the universe except God and me! He was certainly the third. Oh my brother Oorsooeh, why wouldest thou not acknowledge thyself my inferior? But thou hopedst to find an opportunity of killing me: thou thoughtest that there ought not to be more than one great man in the world. Thy sentiment was not to be blamed; it is one which all mighty kings ought to participate."^f

The ferocious actions of these little tyrants are not revolting to a people equally sanguinary as themselves, and who, even after their death, hasten to gratify that thirst for human blood which they consider as inherent in their royal manes. On the death of Freempoong, king of the Akims, that people sacrificed on his tomb, his slaves, to the number of several thousands, together with his prime minister, and 336 of his women. All these victims were buried alive, their bones being previously broken. For several days the people performed dances, accompanied with solemn songs, round the tomb where these unfortunates suffered lingering and horrible agonies.

Neither public nor private happiness can exist where laws and manners so barbarous prevail. Two thirds of the negro population lead lives of hereditary bondage in their own country, or are liable every instant to be reduced to that condition by the order of their despots. Perhaps it is of little importance to the greater part of these unhappy persons what country they water with their sweat and tears. It is true, indeed, that the sight of so many individuals, sold with the semblance of law, offers to the slave merchants some temptations to carry off free persons

^a Oldendorp.

^b "Cabossiers."

^c Isert, p. 221. Oldendorp, p. 304. Matthews, p. 81.

^d Description du Tombouctou, dans les Annales des Voyages.

^e Description de Bournou, *ibid.*

^f Rœmer, Relat. de la Côte d'Or.

by stealth or violence, and some horrid examples of such a practice are adduced. One of these merchants, known by the name of Ben Johnson, had carried off a free young woman, and sold her to an English captain. As he returned with the reward of his villany, other negroes, dispatched by the prince or the chiefs of the village, attacked him, bound him, and crying, "off with the thief," took him to the vessel, and offered him for sale. It was in vain that Ben Johnson appealed to the friendship of the European negro-dealer, reminding him that he was a free man, and his most active hand in procuring slaves. "No matter," says the unfeeling Englishman, "since these people sell you, I purchase you;" and instantly fixed his fetters. In other instances, a horrible avarice dissolves all the ties of kindred. Mothers are seen selling their children at an early age, for a few bushels of rice. One day, a stout young African took his little son to sell him to the Europeans; the latter, more cunning, and better acquainted with the language of the foreigners, showed them that a man of the strength and size of his father, was of more value than he, and thus prevailed with them to take him in his stead, though the latter kept calling out, that "no son had a right to sell his father."

Some despots consider the population of their territories as a large stall of cattle, from the sale of which they expect to derive a revenue. The town of Gandiulle was lately called on by the *Damel*, or king, for a contribution of eighty-three slaves, which, on their refusal to pay, he exacted by force. Gandiulle was transformed into a camp, filled with horse and foot, who flocked to the place for the sake of pillage, and wherever the same legitimate monarch arrived, his presence uniformly brought consternation, desertion, and wretchedness.^a

It cannot be denied, that these enormities are purely the offspring of the infamous traffic in negroes. The most dreadful thing is, that the African princes, in order to get possession of a hundred men, often sacrifice a thousand; for, when these despots do not find individuals whom they can condemn to be sold, they regularly hunt down the inhabitants of an entire village, like a flock of deer; some make an armed resistance, others fly to the woods, to the dens of lions and panthers, scarcely so merciless as their own compatriots. Several tracks of country have been depopulated by these atrocities.

It is certain that the slaves are carried off against their will, and most frequently in all the agonies of the most poignant affliction. This is not denied: but it is said that they consist of captives who would otherwise be slain, or criminals condemned by courts of justice. The answer to this is, and it is proved beyond all possibility of contradiction, that wars are now undertaken, incessantly, for the express purpose of procuring slaves for the market; and that since the establishment of this traffic, every crime is punished by selling the offender to a dealer;—accusations of witchcraft or adultery are always at hand to insure a supply to the traders on the coast; and if these fail, it is admitted, that by advancing a little brandy or gunpowder to the natives, a whole village may be legally carried off in satisfaction of the debt.

The necessity of crowding on board of one vessel several hundred slaves, often produces the most horrible scenes. Attacked by pestilential fevers, by famine and death, the

slave ship becomes at once an hospital, a prison, and a school of inhumanity and crime. More than one half of the blacks that form the cargo kill themselves or die of disease; sometimes the captain, reduced to a want of provisions, throws them alive into the sea to save the lives of the Europeans. The mariners employed in such a trade acquire a ferocious character, and afterwards stain the soil of Europe with crimes worthy only of degraded Africa.

The following extract from the *Bibliothèque Ophthalmique*, will give some idea of the horrors of what is called the middle passage: "The *Rodeur* sailed from *Havre* on the 24th of January, 1819, for the coast of Africa, to purchase slaves. When under the line, it was perceived that the negroes, who were heaped together in the hold, and between decks, had contracted a considerable inflammation in the eyes. They were successively brought on deck, in order that they might breathe a purer air. But it was necessary to discontinue this practice, because they threw themselves into the sea, locked in each other's arms. On the arrival of the ship at *Guadaloupe*, the crew was in a most deplorable condition. Of the negroes, *thirty-nine had become blind, and were thrown overboard.*"^b

To say nothing of the mental agony implied in the forcible separation of these miserable beings from their friends and their country, it is quite enough to mention, that upon an average, no less than seventeen in the hundred die before they are landed; and that there is a farther loss of thirty-three in the seasoning, arising chiefly from diseases contracted during the voyage. One half of the victims of this trade perish, therefore, in the rude operation of transplanting them; and probably not less than 50,000 men are cut off thus miserably every year, without taking into account the multitudes that are slaughtered in the wars to which this traffic gives occasion, and the numbers that must perish more gradually by being thus deprived of their parents or protectors.

Of their situation in the West Indies, few that desire to be informed need now be ignorant. They are driven at work like a team of horses, or a yoke of oxen, by the terror of the whip. No breathing time or pause of languor is allowed, they must work as cattle, draw altogether, and keep time exactly, in all the movements which their drivers enjoin. Of the infelicity of this condition, some estimate may be formed, from the precautions that are necessary to withhold them from suicide and from insurrections, which no precaution can ever long avert.^c

The exportation of slaves from Africa to the New World seems to have begun as early as the year 1503, when a few slaves were sent from the Portuguese settlements in Africa into the Spanish colonies in America. In 1511 it was greatly enlarged by Ferdinand the Fifth of Spain; and the benevolent Bartholomew de las Casas, blinded by compassion for the poor American Indians, proposed to the government of Spain, then administered by Cardinal Ximenes, during the minority of Charles the Fifth, the establishment of a regular commerce in the persons of native Africans. "The Cardinal, however, with a foresight, a benevolence, and a justice, which will always do honour to his memory, rejected the proposal; not only judging it to be unlawful to consign innocent people to slavery at all, but to be very inconsistent to deliver the inhabitants of one country from a state of misery by consigning it to those of another. Ximenes,

^a Mollien, *Travels in Africa*, p. 18.

^b *Bibliothèque Ophthalmique*, Nov. 1819.

^c *Edinburgh Review*, Vol. IV. p. 478, 479.

therefore, may be considered as one of the first great friends of the Africans after the partial beginning of the trade."^a

From that period to the first combination for its abolition,—from the truly great Cardinal Ximenes, to the illustrious ministers Pitt and Fox, there were never wanting voices to declare its iniquity; but it was not till the year 1727, and still more strongly in the year 1758, that the Quakers in England, at their yearly meeting, and in their collective character, fervently warned all their members to avoid being in any way concerned in this unrighteous commerce. In the yearly meeting of 1761, they proceeded to exclude from their society such as should be found directly concerned in this practice; and, in 1763, declared it to be criminal to aid and abet the trade in any manner, directly or indirectly. From this time there appears to have been an increasing zeal on this subject among the Friends, so as to impel the Society to step out of its ordinary course in behalf of their injured fellow men. Accordingly, in the month of June, 1783, the Friends, collectively, petitioned the House of Commons against the continuance of this traffic; and, afterwards, both collectively and individually, exerted themselves by the press, by private correspondence, and by personal journeys, to enlighten the minds of men concerning it, especially those of the rising generation. Indeed, by the frequent intercommunion of the Missionary Quakers from England to America, and America to England, the Quakers had earlier and greater opportunities, than any other body of men in Great Britain, of becoming acquainted with its horrors; while, from their religious principles, they were likely to be the first in becoming uneasy under the sense of its injustice.

The public efforts of Mr. Wilberforce, Mr. Fox, Mr. Pitt, and of other senators,^b the prodigious and persevering labours of Mr. Clarkson, the writings and exertions of the learned and courageous Granville Sharp, backed by the almost unanimous voice of the British public, after a struggle of nearly fifty years, received their final reward in the legal abolition of the trade relative to the British empire—a legislative measure which constitutes the glory of the administration of Mr. Fox and Lord Grenville. The act for this purpose received the royal assent on the 25th of March, 1807.

On the 2d of March of that same year, the slave trade was abolished in the United States, and by a subsequent act, it was declared a capital crime to engage in it.

In 1814, Denmark followed the example of Britain.

In the same year, the king of Spain engaged by treaty^c to prohibit his subjects from carrying on the slave trade, for the purpose of supplying any island or possessions, excepting those appertaining to Spain; and to prevent, by effectual regulations, the protection of the Spanish flag being given to foreigners who might engage in this traffic; and, in 1817, he further engaged, not to carry on the trade in slaves to the northward of the line; with an additional regulation, that the slave trade should be abolished throughout the entire dominions of Spain, on the 30th day of May, 1820; and that from and after that period, it should not be lawful for any of the subjects of the crown of Spain to purchase slaves, or to carry on the slave-trade, on any part of the coast of Africa, upon any pretext, or in any manner whatever; in consideration of

his Britannic Majesty engaging to pay the sum of four hundred thousand pounds sterling, as a compensation for losses sustained by his subjects engaged in this traffic. It must be allowed that his Catholic Majesty appears to have taken his humanity to no bad market.

In the same year, the King of the Netherlands also agreed to abolish the slave trade; but it was not until 1818 that he entered into a convention with the King of Great Britain, for the purpose of preventing their respective flags from being made use of as a protection to this nefarious traffic by the people of other countries. In this, he engages to prohibit his subjects "in the most decisive manner, and especially by penal law the most formal, from taking any part in the said iniquitous trade;" and the more effectually to put a stop to it, the two parties agree to a mutual right of search of their respective merchant ships, within certain limits, by ships of war of the two nations, on good grounds of suspicion that such merchant ships are engaged in the trade; and in the event of any slaves being actually found on board, the ship so engaged to be seized and brought to trial before a mixed court of justice, to be composed of an equal number of members of each nation.

In the year 1815, his Faithful Majesty of Portugal likewise brought his humanity to market, and agreed to abolish the slave trade to the northward of the equinoctial line in consideration of the sum of 300,000*l.* being paid to him by England; and a remission of the residue of a loan to Portugal of 600,000*l.* And in July, 1817, a further treaty was made, similar to that with the King of the Netherlands, agreeing to a mutual search of merchant vessels; to the establishment of two "mixed courts," one to be held on the coast of Africa, and one in the Brazils.

These courts are composed of a judge and an arbiter, named by each contracting party, who are to hear and decide, without appeal, in all cases of capture of slave ships brought before them; but such is the defective nature of the constitution, and such the practices of the courts of mixed commission, and the evasions of the treaties by the slave dealers, that the efforts of the officers, who are zealously and honestly bent on performing their duty, are often rendered completely nugatory, and they themselves placed in the most embarrassing situations.^d

In 1815, France professed to abolish the slave trade; but the laws enacted for this purpose are so lax and indulgent that they are any thing but efficacious:—They merely condemn the ship and cargo to confiscation; but such are the profits of one successful voyage, that they will afford an indemnification for the loss of several penalties. The French oppose the only effectual means of checking the trade—(short of declaring it piracy)—a reciprocal right of search.

During the war with France, when England engrossed almost the whole commerce of the world, and exercised the right of search upon all suspected vessels, the slave trade had nearly ceased on a great part of the coast; but, since the conclusion of the late war, the papers laid on the table of both Houses of Parliament, too clearly demonstrate that its atrocities have greatly increased. It was undoubtedly to be expected, that when England had withdrawn herself from this odious traffic, the most afflictive branch of which, (the middle passage,) she had pre-

^a Edinburgh Review, Vol. XII. p. 359.

^b Ibid. p. 360.

^c Quarterly Review, No. 51. p. 59.

^d Ibid. p. 60. 62.

viously mitigated by salutary regulations, the avaricious and unprincipled of all nations would rush in to fill up the void which she had made; but after the sovereign powers of Europe had, by their plenipotentiaries, solemnly declared the slave trade to be "the degradation of Europe, and the scourge of humanity;" when, in consequence of this unanimous reprobation, it had been settled by solemn treaties, that at the expiration of the indulgence granted to Spain and Portugal, to trade for a certain limited time, and within a limited space, it should wholly cease, it could hardly be anticipated that those very powers, in open violation of treaties, should be found, not only giving all possible encouragement to their own subjects, but by allowing foreigners to fit out in their own ports, and to assume their own flags, the more conveniently to carry on this detestable traffic, with all the aggravated horrors of which it is capable.

Although France has a squadron on the western coast of Africa, for the avowed purpose of preventing the trade, it is notorious that the slave vessels are scarcely incommoded by her cruisers; and the French officers, if they do not encourage, at least connive at, the numerous slave vessels that swarm upon the coast. In consequence of this, the trade, though proscribed by the nations of Europe, so far from being abolished, or even limited, is greatly extended, inflicting increasing misery not only upon its immediate victims, but upon the whole of this unhappy continent, and a considerable portion of the New World. So long, indeed, as the monopoly of the markets of Europe is secured to the produce raised by slaves, it will be in vain to expect the total and *bona fide* abolition of this traffic. Free labour is at present so high in the West Indies, as to hold out an overwhelming temptation to import slaves; and when such is the case, it is too much to trust to registry laws, and such devices, to prevent their importation. On this point, the opinion of Bryan Edwards is deserving of serious attention. "Whether," says he, "it be possible for any nation in Europe, singly considered, to prevent its subjects from procuring slaves from Africa, so long as Africa shall continue to sell, is a point on which I have many doubts; but none concerning the conveying the slaves so purchased into every island in the West Indies, in spite of the maritime force of all Europe. No man who is acquainted with the extent of the uninhabited coast of the larger of these islands, the facility of landing in every part of them, the prevailing winds, and the numerous creeks and harbours in all the neighbouring dominions of foreign powers, (so conveniently situated for contraband traffic,) can hesitate a moment to pronounce, that an attempt to prevent the introduction of slaves into our West India colonies, would be like that of chaining the winds, or giving laws to the ocean."^a There is, in fact, but one way effectually to put down the West India slavery, and that is, to allow the sugar and other colonial products, raised by comparatively cheap free labour in the East Indies, to come into competition with that raised by slaves in the West Indies. When this is done, the latter will be driven from the field; and there will be no farther motive to tear the poor Africans from their native soil.^b

With regard to the state of colonial bondage, the progress of general improvement is exceedingly tardy.^c Fif-

teen years have elapsed since the abolition of the slave trade was enacted by the British Parliament. But during that long period no effective measures have been adopted either by the Imperial Legislature, or by the Colonial Assemblies, for ameliorating the condition of the slave, or paving the way to his future emancipation. In many of the colonies, voluntary manumissions by the master still continue to be loaded with heavy impost; and this cruel tax upon private benevolence prevails even in colonies where the crown is the sole legislator. In all, the slave continues absolutely inadmissible as a witness in any cause, whether civil or criminal, which concerns persons of free condition; and even in questions affecting his own personal freedom, and that of his posterity for ever, the *onus* still rests on him to prove that he is free, and not, as in all justice it ought to do, upon the person denying his freedom, to prove that he is a slave. In none, is the marriage of the slave made legal, or guarded by any legal sanctions; and, with partial exceptions, his instruction in Christianity is left to the fortuitous efforts of voluntary missionaries.

The negro race, even supposing it to be inferior in intellectual capacity to the Europeans, the Arabians, and Hindoos, unquestionably possesses the requisite faculties for appreciating and adopting our laws and institutions. Notwithstanding the horrible picture which we have drawn of the actual state of Africa, the negro is not a stranger to the sentiments which honour and exalt human nature. Though we sometimes find parents selling their children, the ties of parental tenderness are in general as powerful as they can well be, in a country in which polygamy is practised. "Strike me, but say no harm of my mother," is a sentence familiar among the negroes. A Danish governor, on the Gold Coast, presented with his liberty a young negro who wished to sell himself in order to purchase his father's freedom. Friendship has had its heroes in Guinea as it had in the country of Pylades. Proofs of generous gratitude have also been displayed. Not long ago a French negro having become an opulent merchant, gave an annuity to his old master who had become unfortunate. There are some colonists who, like the ancient eastern patriarchs, live among their slaves as in the bosom of a family united by an inviolable attachment.

In Senegambia, the inhabitants of each village have their slaves assembled in a collection of huts, close to one another, and which is called a rumble. They choose a chief from among themselves, and if his children are worthy of the distinction, they succeed to the situation after his death. These slaves cultivate the plantations of their masters, and accompany them to carry their burdens when they travel. They are never sold when they have attained an advanced age, or when they are born in the country. Any departure from this practice would issue in the desertion of the whole rumble; but the slave who conducts himself improperly, is delivered up by his comrades to their master to be sold.^d

The finest feature in the negro character is heroic fidelity to a just master, and even to a severe one, of which Mollien gives a remarkable instance in the story of Quagieh, a negro overseer.^e

The negroes, as well as the Foulahs and other inhabi-

^a History of the West Indies, vol. II. p. 136.

^b Edin. Review, No. 75. Article, East and West India Sugars.

^c Sixteenth Report of the African Institution, p. 44 45

^d Mollien, Travels in Africa, p. 138.

^e This story is given by Malte-Brun, in the original.—P.

tants of the different villages in Senegambia, practise hospitality in the kindest and most delicate manner ; the whole exertions of the family seem devoted to console the fatigues and privations of a stranger ; a separate hut, food, forage for his beasts of burden, and personal service, are readily afforded, with apologies for defects, and often without the expectation of any return. The ferocious and perfidious conduct of a great many individuals in the different African nations and tribes, though in some communities more marked than in others, only serves to illustrate, by contrast, virtues which are of frequent appearance. The traveller Park gives an instance of kindness and hospitality experi-

^a Park's Travels, vol. I. p. 193.

enced by himself in the kingdom of Bambarra, which, for tenderness and simplicity, approaches almost to the stories of romance.^a The negroes are invariably found much better men than the Moors. When M. Mollien was at the African village of Sanai, in the interior, though the people were at war with the Foulahs, a caravan of Serracolets arrived, and the merchants of the two nations traded freely and securely, and were not even subjected to the least molestation or inconvenience from search. The two governments, relying on the probity of the merchants, agreed to protect them, and not a single instance occurred of a caravan having been pillaged by either of the armies.^b

^b Mollien, Travels in Africa, p. 138.

BOOK LXIX.

AFRICA.

Continuation of the description of Africa.—General and particular description of Congo, or Southern Guinea, and of some adjoining states.

IN savage, unlettered regions, the caprice of the traveller, or the pedantry of geographers, occasionally invents new names, or supersedes those generally received. One denomination is for the most part as arbitrary as the other, and the choice to be made between the old and the new does not merit much discussion. The coast of western Africa, included between Capé Lopez de Gonsalvo and Cape Negro, is in commerce known under the general name of the *coast of Angola*.^a It is the *western Ethiopia* of certain French and Italian authors.^b It is part of the *lower Ethiopia* of the Portuguese, a great division of Africa which commenced near the fort of Mina, on the north side of the equator.^c The best geographers of the present day name it *Lower Guinea*, or *Southern Guinea*, to distinguish it from that which is properly so called, and for distinction, *upper Guinea*.^{d e} It would nevertheless appear more natural to give to this region the name of Congo, a kingdom under the government of which it was formerly almost wholly included, and the language of which appears to be the source of all the idioms that are there spoken.

Situated, like Guinea, in the torrid zone, but to the south of the equator, Congo enjoys nearly the same climate as those countries which we have described in the three preceding books, with this difference only, that the seasons appear in opposite months. Respecting the seasons, there can only, in strictness, be distinguished the two extremes of dry and rainy. In general, from the period of our vernal equinox until the end of September, no rain falls; but the winds from the south and south-east temper the atmosphere,^f and the heat, although intense, particularly in clear days, is nevertheless supportable. During foggy weather, which is not uncommon, the humidity of the air relaxes the fibres, oppresses respiration, and from the slightest exercise violent perspirations are excited, which undermine the health of strangers, and oblige them either to dry themselves by the fire, or to change their clothes. During the other half of the year the sun is less an orb of light than a burning furnace; his perpendicular rays would dry up the sources of life, and render the soil completly

barren, did not bountiful nature furnish a remedy in the coolness of the nights, which are equal to the days in length; in the dews of the evening and morning always abundant at this period. The air is farther cooled by the rapid torrents which furrow the sides of the hills, and by the numerous rivers which water the plains: we may also add the effect of the winds impregnated with humid vapours, which, during this season, blow periodically from the north-west, namely, from the Gulf of Guinea, and collect, among the mountains of the interior, immense masses of vapour in the form of clouds. From the beginning of October these reservoirs of water pour upon the country frequent rains, accompanied by storms of thunder and wind, which do not cease till the month of April.^g The soil, heated to a considerable depth, absorbs this water with avidity—nature revives and assumes a smiling aspect—vegetation is developed with an astonishing rapidity—the fields are covered with a fresh verdure—the trees push forth their buds, the odour of springing flowers perfumes the atmosphere.^h There are, nevertheless, in this as in other countries, exceptions to the rule: the rains sometimes do not come on until after the usual period, or even fail altogether; sometimes they fall in the dry or winter months. At all times the stagnant waters which remain after the rains, fill the air with mephitic exhalations, and render a residence near the coast dangerous to Europeans.

The inhabitants of Congo divide the year into six periods. The spring, *Massanza*, begins with the rains of October, which go on increasing until the month of January. Then follows the *n'sasou*; it is the season of the first harvest, and of the second sowing, the produce of which is collected in April. The rains which, since the month of January, had been only passing showers, recommence during the month of March, and continue, though slight, until the middle of May. It is into this interval that the *ecundi* and the *guitombo* fall. The *guibsoo* and the *quimbangala* constitute the latter end of autumn and the winter; this last marked by a destructive drought, which kills the leaves of the trees by depriving them of sap, destroys the herbage, and strips the country of all its beauty.

The correspondence of these with our climate, and the more modern division of Captain Tuckey, will be readily understood from the following Table.

^a De Grandpré, Voyage à la côte Occidentale de l'Afrique, Introd. p. 13.

^b Cavazzi and Labat, Relation Historique, &c. Paris, 1732.

^c Marmol, Afrique, III. 90.

^d Bruns, Afrika, IV. 9.

^e Cape Lopez is the point of division, with the Portuguese, between Upper and Lower Guinea. Many Geographers limit the term Guinea

to the country N. of Cape Lopez, and confine the term Lower Guinea to the country S. of Benin, extending that of Upper Guinea to all the remaining part.—P.

^f Lopez, Relazione di Congo, p. 7. (edition of 1591, Rome.)

^g Proyard, History of Loango, &c. German Translation of Meiners, p. 1.

^h Labat, Relation Historique, I. 104.

Names and duration of the African Seasons.

		CAPTAIN TUCKEY.	THE AUTHOR.	
1.	Rainy.	<i>Mallola Mantity</i> , Sept. 22 to Oct. 15	1. <i>Massanza</i> .	
2.		<i>Voolaza Mansanzu</i> , Oct. Nov. Dec. Jan.		
3.		<i>Voolaza Chintomba</i> , Jan. Feb. March 22		2. <i>N'Sassou</i> .
4.	Dry or Winter.	<i>Gondy Assivoo</i> ,	3. <i>Ecundi</i> .	
			March, April	4. <i>Guitombo</i> .
			April, May	5. <i>Guibsoo</i> .
			May, June, July	6. <i>Quimbungala</i> .
		July, Aug. Sept. 22		

In commencing an account of the physical geography of Congo, we immediately perceive that the two principal features are deficient, since as little is known of the direction of the chains of mountains as of the origin and the course of its rivers. The source of the greater number of the latter is from a plateau of table-land, or from a chain of mountains generally distant from the coast at least from one hundred and fifty to two hundred leagues. But this chain appears to open itself in front of two great streams which proceed from the interior of the continent, and of which the origin is unknown. The river *Coanza*, although the least considerable, is more than a league wide at its mouth; it rolls along its muddy waters with such irresistible force, that the sea is coloured by it to the distance of three or four leagues in the offing. It is navigable as far as the city of Masangano, which is at the distance of forty leagues in the interior; its great cataracts are sixty leagues farther. It appears to proceed from the south-east. The river *Congo*, called *Zaire*, or *Zahire*, by the natives, is three leagues wide at its mouth, and empties itself into the sea with so much impetuosity, that no depth can be there taken by the sounding line, on account of the violence of the current. The force of this current is felt at a distance of four leagues at sea, and some effect is even perceptible at twelve leagues; the water at that distance not only retains a blackish tint, but small floating islands of bamboo, hurried down into the ocean, surround the navigator, and even impede the passage of vessels.^a The cataracts of this river, situated at a distance of one hundred and twenty leagues in the interior, have a more sublime appearance than those of the Nile.

This great river undoubtedly rises at a very great distance; but is it reasonable to suppose that it is the same as the Niger or the Joliba? This conjecture, offered by M. Setzen more than ten years ago,^b has been revived by the unfortunate Mungo Park,^c and adopted as the basis for a new English expedition, destined to complete the discovery of the Niger. We shall sketch briefly the arguments by which we refuted this hypothesis at the time it was advanced. My opinion has been but too unhappily confirmed. The English expedition was unable to proceed more than a hundred and twenty miles beyond the first cataracts of the Congo, in a south-east direction. The Portuguese have penetrated farther than this. My friends, Captain Tuckey, and M. Smith the Norwegian botanist, both perished, the victims of an enterprise from which I had dissuaded them by private letters, and by articles in the public journals.

Wangara is a very low country; it is a marsh, and sometimes a lake. The interior of Congo is, on the contrary, mountainous, and very high. How can the Niger, issuing from Wangara, find a sufficient declivity towards those regions where the Zaire flows? Supposing that it directs its course, on leaving Wangara, to the south-east, it will very probably fall in with the river Camarones, or with those of Benin and Calabar, which, if one may judge by their mouths, ought to be immense rivers, and consequently derive their origin from a considerable distance within the interior.^d These are the reasons opposed to the identity of the Niger with the Zaire. Moreover, this last receives its greatest known stream from the south-east, under the name of *Coanga*, and it owes the abundance of its waters, according to the reports of the natives, to a considerable lake imperfectly known, and which they call *Aquilonda*. It may, perhaps, form a part of an entire system of lakes, similar to the lakes of Canada, and which may probably even include that of Maravi.

The soil, generally rich and fertile, rewards amply the labours of the husbandman. Nevertheless, the land along the coast, being either too sandy or too marshy, is unfavourable to cultivation. Sands also compose all the mountains of Loango, and are spread over the whole surface of Sogno, where, however, they cover a good soil. Among the other constituent parts of the soil of lower Guinea, there is an excellent argillaceous earth,^e entire mountains of oriental granite, porphyry, jasper, various kinds of marble, and even, according to Lopez, the hyacinth.^f There are also found aerolites, called in the language of the country *targia*.^g Limestone, which is wanting, except above the cataracts of the Zaire,^h is supplied by shells found in great quantities along the sea shore. Loango abounds in salt: it is obtained in shallows along the coast, from a spontaneous evaporation of the water; the negroes also prepare it by boiling.ⁱ The kingdom of Angola contains salt pits, from which are extracted pieces of salt two feet in length and from five to six inches in breadth. The salt sold in the markets by the name of *guisama* or *khissama* stone, is used as a medicine. According to Battel,^k it is a variety of rock salt, beds of which at the depth of three feet, extend over a considerable part of the province of Demba.

The mines of Loango and Benguela furnish abundance of excellent iron.^l Nearly all the mountains of Guinea are ferruginous; but the natives do not understand the mode of extracting the metal, and the Europeans, in this respect, encourage their indolence. In *Angola*, iron ore is found dissolved in the water of the river.^m With a view of arresting it, the negroes place in the river bundles of straw and dried vegetables, to which the metallic particles attach themselves.ⁿ According to Battel, Lopez, and Grandpré, copper and silver abound in Angola, and particularly in the kingdom of Mayomba, where the metal is found near the surface.^o There are also several mines of copper in Anziko, and in the mountains to the north of the river

^a Archibald Dalzel, Nautical Instructions for the coast of Africa.

^b Correspondence, Géog. et Astron. de M. Zach, V. 260. (Année 1802.) Comp. VI. 224. where M. Setzen appears to have abandoned his idea.

^c Mungo Park's last Journal.

^d Reichard, in Zach's Correspondence, V. p. 409.

^e Labat, Rel. II. p. 63.

^f Lopez, l. c. p. 42.

^g Labat, I. p. 71.

^h Tuckey, 353. 488.

ⁱ Zucchelli, Voyage and Mission, Germ. Transl. p. 153—324. Proyart, p. 97.

^k Purchas' Collection, II. p. 978.

^l Labat, I. p. 27—83. II. p. 59. Zucchelli, p. 280.

^m In the torrents that flow from the mountains in the rainy season.—*Ed. Encyc.*—P.

ⁿ Labat, I. p. 71.

^o Purchas, p. 978. Lopez, p. 23. De Grandpré, I. p. 38.

Zaire : near the great cataract it is extracted of a bright yellow.^a Nothing, however, attests the presence of gold ; and every thing that has been said concerning the mines of the Portuguese colony of Benguela is mere conjecture.

If the riches of the mineral kingdom are less brilliant than they have been represented by former travellers, it is not so with the productions of the vegetable kingdom. In the valley of the Zaire alone, Professor Smith discovered 12 genera, and 250 species, of plants *absolutely new* ; besides, other 10 genera, and 250 species, which are only found in Congo, or countries adjacent.^b Nature here, all life and activity, presents to the eye a luxuriance which no description can exceed. The downs are enamelled with flowers of every hue. Tall and close grasses almost completely overarch the roads. The fields and woods are decked with lilies whiter than snow ; in every direction there are entire groves of tulips of the most lively colours, intermixed with the tuberose and hyacinth. The rose and jasmine, the ornaments of our gardens, would, in that region, require the aid of watering, which the European, either attached to commerce, or given up to indolence, altogether neglects.

Among the alimentary plants, is the *mafringo* or *masanga*, a species of millet, highly pleasant both in taste and smell, the ears of which are a foot long, and weigh from two to three pounds. The *Horcus*, of every variety, grows without culture.^c The *luno* or *luco*, probably the test of Abyssinia,^d forms a very white and pleasant bread, as good as that made of wheat ;—it is the common food of Congo. The ears are triangular, and the grains of an iron-gray colour, marked with a black spot ; they are not larger than those of mustard. The seed was brought from the environs of the Nile, shortly before the time of Lopez.^e The culture of European wheat has been tried in vain. Its over-luxuriant stalks grow to a great height,^f but continue barren. M. de Grandpré,^g however, witnessed the growth of ears which contained fifty-two grains. The maize, *mazza mamputo*, introduced by the Portuguese, is used for fattening pigs. It affords two or three crops. Buckwheat affords two crops ; it bears drought better than other corn,^h and its stalks rise from six to ten feet. Rice is abundant, but not esteemed. All the pot-herbs of Europe, such as the turnip, the radish, lettuce, spinage, the cabbage, gourd, cucumber, melon, and fennel, thrive well, and even attain a greater degree of perfection than on their native soil. The potato, called by the negroes *bala-puta*, or Portuguese-root, was brought from America, and has a higher flavour than in Europe. The American manihot, or cassava, whose root is used instead of bread, is also cultivated : as likewise the pistachio-nut, particularly in Loango : the yam ; the *tamba* and the *chiousa*, which are a species of parsnip. The *incouba*, or Angola pea, grows under ground. The *owando*, another species of pea, is gathered from a shrub which lives three years, and affords good nourishment. M. de Grandpré particularly mentions the *msanguï*, which has a taste resembling the lentil.ⁱ There are several kinds of bean, which, planted during the rainy season, afford three crops

in six months. The *neubanzam* is like our filbert, and requires little attention ; it forms the common food of the natives of Congo. The ananas,^k six spans high, and always full of fruit, grows naturally in the most desert situations,^l as the sugar-cane in the most marshy. This last reaches an extraordinary height : the negroes suck the juice, and sometimes bring it to market. The liquorice plant is here parasitical, and its flavour exists only in the stalk. Tobacco appears to be indigenous. It is negligently cultivated, although it is an object of the first importance among the negroes, women as well as men, who all smoke, and make use of earthen pipes. Some of them also use it in the form of powder. The vine has been transplanted from the Canary Islands and Madeira. Wine is made to the south of the river Zaire. That of the Capuchins is of an excellent quality.^m The cotton of Congo is not inferior to the American. The capsicum is extremely acrid. The clusters of the *inquoffo*, which climbs trees or entwines plants, afford another very powerful species of pepper. The *dondo* possesses all the qualities of cinnamon. The fruit of the *mamao*, a shrub with very large leaves, is like our gourd. The other shrubs and small trees to be noticed are : the *mololo*, like the lemon ; it is stomachic : the *mambrocha*, which is of a pale yellow, and resembles the orange : the *mobulla*, an aromatic and very wholesome fruit, which grows in the axillæ of the leaves, like our figs.ⁿ Besides the pisang, or banana, from which is made the bread of the rich, and the *bacova*, the fruit of the banana-fig, the *nicosso*, another kind of pisang, grows in clusters of the form of a pine-apple, containing more than two hundred delicious fruits, which ripen during the whole year. The orange, lemon, pomegranate, guava, &c. for the culture of which they are indebted to the Portuguese, have not degenerated.^o

In general, southern Guinea is enriched with the same vegetable productions as Guinea, properly so called. It possesses exclusively the *conde*^p of two species. Its fruit, in shape like a pine-apple, contains a white, farinaceous, and refreshing substance, which melts upon the tongue. The fruit of the *zaffo* is like our plum ; it is, however, larger, and of a bright red colour. That of the *oghohe* has the same shape, is yellow, sweet-scented, and of an agreeable flavour ; the tree is used in timber-work. The *insanda*, or *encanda*, an evergreen-tree, which in its leaves resembles a laurel, does not bear fruit ; but its bark is used in the manufacturing of stuffs which are in high esteem. Its branches reach the ground, and take root. It is probably the *ficus benianina*^q of Linnæus.^r The *mulemba*, which is very like the *insanda*, furnishes materials for stuffs of a much higher value. The resin procured from its trunk makes a good bird-lime. The *mirrone*, of the same genus, is an object of adoration to the negroes. The oils of the *liquieri*, or *luqui*, of the *capano*, or devil's-fig, and of the *purgera*,^s as well as the gums or resins of the *cassanevo* and the *almetica*, are used both in domestic economy and in medicine.^t The *muchia*, a tree as large as our oak, produces a pungent, but agreeable fruit. The fruit of the *avasasse* is as large as a nut, and has the

^a Cavazzi and Labat, I. p. 35.

^b Tuckey's Narrative, p. 485.

^c Battel, p. 985.

^d Ehrmann, Collection des Voyages, XIII. p. 172.

^e Lopez, p. 40.

^f "They are taller than a man on horseback."

^g De Grandpré, I. p. 14.

^h Labat, I. p. 114.

ⁱ De Grandpré, I. p. 6.

^k Pine-apple.

^l Labat, I. p. 142. Zucchelli, p. 151.

^m Labat, I. p. 144. Proyart, p. 29—94.

ⁿ Labat, I. p. 137.

^o Labat, p. 119—138—141. Proyart, p. 25.

^p Zucchelli, p. 152. (It appears that *conde* is a Portuguese denomination.)

^q *F. benjaminia*?

^r Bruns, Afrika, IV. p. 34. Labat, I. p. 122.

^s *Purgera* is probably Portuguese.

^t Labat, I. p. 80. 124. 146.

flavour of a strawberry. The juice of the *gegero*, which resembles an oblong orange, is strengthening. The seeds of the *colleva*, a very large tree, whose fruit resembles an enormous lemon, are red, bitter, and stomachic.

Forests of mangrove extend along the marshy coasts and the rivers. Sandal wood, red and gray, called *chigongo*, is abundant in Anzico. The tamarind trees and cedars which line the Congo river might afford wood for the building of large fleets.^a

Many species of the palm tree adorn the plains of Guinea. They have not been examined by any naturalist, but there appear to be several peculiar to this country.

The cocoa rises above all these useful trees; its fruit is here, as in every other situation, one of the greatest blessings of nature. The *matome* palm^b grows in a marshy soil. The ribs of its leaves, prodigiously large, are used for the roofing of houses, for ladders of thirty or forty steps, and for elastic poles to support the hammocks of the great.^c

The *matoba* palm, probably the *Cocos guineensis* of Linnaeus, yields a sourish wine; its fruit is smaller than the cocoa-nut; its leaves, shorter and wider than those of the preceding species, are used for the covering of houses, or for making hampers and baskets. The sap of the dwarf-palm, the smallest of the species, yields an unwholesome beverage, which the stomach of the negroes alone can bear. Very beautiful stuffs are manufactured from the fibres of its leaves. The date-tree, the fruit of which is excellent, bears here the name of *tamara*, the name given to it in the sacred writings. This might lead us to conjecture that some Hebrews or Arabs have penetrated as far as Congo. The fruit of the *coccatá* palm contains a delicious drink; it is of the size of a melon, and differs little from the cocoa-nut; the remaining substance affords a good aliment.

The tufts of the noble Congo palm enclose and embellish the fields and forests of the country of which it bears the name; its fruits, very abundant, are not inferior to those of any other species of palm; its wine is sweet, sharp, agreeable, and as strong as Champagne. When not deprived of its sap, it produces at the root of its leaves a fruit which a man can scarcely carry; its seeds have the colour and taste of chestnuts. When baked, they are the support of the poor; and when heated, afford a thick oil, used by the negroes for seasoning their food, and by Europeans for burning in lamps: the fibres of the leaves are used in making baskets, ropes, and mats.^d This palm, the same undoubtedly which Lopez mentions by the name of *cola*, and M. de Grandpré by that of *latanier*, as the most common palm, appears to be the *Elate silvestris* of Linnaeus.^e

We cannot conclude this account of the principal vegetable productions of Lower Guinea, without noticing that colossus of the earth, the enormous *baobab*, or *Adansonia digitata*, which is here called *aliconda*, *bondo*, and *mapou*. It abounds throughout the whole of the kingdom of Congo, and is sometimes so large, that the arms of twenty men cannot embrace it.^f The substance of its fruits, suffici-

ently large to kill, in their fall, both men and animals, presents a coarse food for the negroes, who, when in want, eat even the leaves of the tree; the shell affords solid *vases*; from the ashes of the wood soap is extracted; from the bark are made cordage, coarse canvass, serviceable stuffs for the poor, and matches for artillery. The tree being very subject to decay, the negroes avoid constructing their huts within its shade, lest they should be crushed by its fall; but the hollow formed in the interior of its trunk, frequently contains water sufficient to supply several thousand men for one day;^g and bees have a propensity to swarm in hives attached to the extremities of the branches.

The greater number of these trees and shrubs, are said not to bear conspicuous flowers; they are green through the whole year; only the leaves, which have an appearance of being scorched during the dry season, fall at the period when new ones come forth, at the beginning of the rains.

In ascending from plants to animated beings, we first observe slugs as large as the human arm.^h The sea-shore is covered with cowries. The fish, both of the sea and of the rivers, are scarcely better known to travellers than to the inhabitants, who are unacquainted with the means of taking them. M. de Grandpréⁱ believes, that the fresh water fishes, and those taken in the sea, wherever the depth does not exceed an hundred fathoms, are nearly the same as our own. A species of small *grumbler*^k may be remarked; the air does not destroy its life so quickly as in other fish; and for a long time after having been taken, it emits a cry which appears distinctly to articulate *cro-cro*. In fishing with a net, there is a risk of being struck by the torpedo, a species of electric ray whose tail is armed with a dart. The sting of this fish is generally followed by a considerable swelling, accompanied with acute pains during several days. Zucchelli and Cavazzi give many details concerning the lady-fish, or *Pesce donna*, which appears to be a phoca, perhaps the sea-cow^l (*manatus*.) Battel^m speaks of a cetaceous fish, called in the language of the country *emboa*, the dog; it resembles considerably the *Delphinus orca*, and drives before it, along the coast, great numbers of fish, and occasionally runs itself ashore; it is probably the *Delphinus delphis*. They dread, in the neighbouring latitudes, the saw-fish, differing little from those in the European seas: the *pico*, a large and dangerous fish; and many species of whales. M. de Grandpré enumerates certain species of the shark tribe,ⁿ which wage war with men, swallowing both blacks and whites without distinction. It is an error to suppose that the negroes of the coast have the talent and courage to oppose the shark by force. There are eels, of excellent quality, carp, squillone, and other fishes proper for food, in the rivers and lakes.

All the rivers are filled with crocodiles, called by some travellers *caimans*; they are generally twenty-five feet long, according to Cavazzi;^o there are some also which never enter the water, but hunt fowls, sheep, and goats. In another place^p however he states, that there are lizards which differ very little from crocodiles. Camelons are

^a Lopez, p. 42.

^b A variety of the *Borassus Flabellifer*, L.

^c Labat, I. p. 123.

^d Ibid. p. 133.

^e Lopez, p. 41. De Grandpré, I. p. 13.

^f Zucchelli, p. 282.

^g Battel, p. 955.

^h Provat, p. 35.

ⁱ De Grandpré, I. p. 35.

^k *Trigla*, "grondin," gurnard.

^l Lamantin.

^m Purchas, II. p. 954.

ⁿ "Le bécune et le requin."

^o Labat, I. p. 185—193.

^p Ibidem, I. p. 422.

found in great numbers, and are considered very venomous.^a The flying lizard, or palm-rat, a pretty little animal, is an object of religious worship;^b the rich preserve it with great care, and exhibit it to the adoration of the people, who offer it presents. Frogs and toads are of an enormous size.

Monstrous serpents infest these inhospitable countries. The *boa* or *boma*, in length from twenty-five to thirty feet, and five in circumference,^c darts from trees upon men and animals, swallowing them at once, and in its turn becomes a prey to the negroes, who attack it during its digestion, or burn it by setting fire to the savannas at the termination of the rains.^d It wages an interminable war against the crocodiles. The bite of another species of serpent is mortal within twenty-four hours. Travellers who are fond of the marvellous, represent it as blind, and describe it with two heads; they mean the *amphisbæna*. The *mamba*, as thick as a man's thigh, is twenty feet long, and very nimble. It instinctively chases the *n'damba*, and devours it whole and alive. This last is only an ell long, with a large and flat head like the viper, and the skin beautifully spotted; its poison is very subtle. The *n'bambi* is one of the most venomous; is with difficulty distinguished from the trees themselves, the trunks of which it entwines, lying in wait for its prey. It is reported that the touch only of the *lenta*, a variegated viper, is followed by death, but that the bile of the animal is its antidote. The country swarms with scorpions and centipedes;^e the former often creep into houses and books.^f

The fleas, bugs, and flies of Europe, are not found in Guinea; there are, however, gnats and mosquitoes in abundance,^g which form one of the plagues of the country. The sting of the *banzo*, of the same size as our gad-fly, is said to be mortal. Different species of very formidable ants infest both men and animals. Malefactors, who are sometimes bound and exposed to them, are consumed to the bones in one day. The *insondi*, or *insongongi*, enter the trunk of elephants, and cause them to die in extreme madness. The sting of the *inzeni*, which are a black and very large species, produces violent pains for some hours. The *salale*, (termes,) small, round, red, and white, are the most dangerous; they insinuate themselves every where, and destroy linen, merchandize, furniture, and even houses, the wood work of which they hollow out, leaving nothing but an external shell. According to De Grandpré,^h they have the instinct to fill up with clay the stakes which support the houses, to prevent their fall. Fire alone, and marble, can resist their devouring teeth; but furniture may be secured by placing the feet in pans of water.

In a country so infested with noisome and destructive insects, it is pleasant to know that one, at least, of considerable utility exists; it is a scarabæus, of the size of a cockchafer, which contributes essentially to the salubrity of the atmosphere, by making deep holes, and burying in them all impure and corruptible matters under ground; it is the more valuable in consequence of its wonderful fecun-

dity. Numberless swarms of bees wander in the forests, occupying the hollows of trees,—and it is only necessary to drive them away by lighting fires under them, and thus take their honey. Locusts are esteemed as food by the natives, and are not despised even by Europeans.ⁱ

The ostrich and peacock are esteemed by the negroes. In Angola, the king has reserved to himself the sole privilege of keeping peacocks.^k There are both gray and red partridges, which have the peculiarity of perching upon trees. The quail, pheasant, and thrush, the widow and cardinal birds, are found in abundance. The cuckoo differs from ours in its note.^l The *Cuculus indicator*, found in every part of the torrid zone, here bears the name of *sengo*. The parrots vary much as to size, colour, and voice.^m Very different from those we see in cages, strong, nimble, and bold, they fly with great rapidity, and are very formidable to other birds, which they attack, and lacerate most unmercifully in the combat.

The different species of turtle doves, pigeons, fowls, ducks, and geese of this country, are not well distinguished. The idle disposition of the natives has never thought of profiting by the use of the eggs of fowls in domestic economy. The hen, left to herself, deposits her eggs where she pleases, and runs undisturbed about the fields with her chickens in search of food. Among the fishing birds are the pelican, the diver, and gulls of every variety. The skin of the pelican, applied to the stomach, is said to restore its vigour.

It is astonishing to behold the immense number of eagles, vultures, falcons, hawks, and other birds of prey, which hover over the savannas when set on fire by the negroes, and snatch from the midst of the flames quadrupeds and serpents half roasted. According to the report of travellers, who have given a very superficial account of birds, the number of owls, screech owls, and bats, is also very considerable.

Among the quadrupeds, the hippopotamus affords the negroes an agreeable dish: which, on meagre days, is not unacceptable to Europeans.ⁿ The wild boar, (*engalli*), of which there are several varieties, is a scourge to the country. The hog, introduced by the Portuguese, is less remarkable for its size than for the goodness of its flesh. The blacks rear a few guinea-pigs. The use of the horse, the ass, and the mule, is a nullity to the negro, who dares not even venture to mount them. Whether negroes or Portuguese, the inhabitants find it preferable to be carried about in hammocks. According to Lopez and Battel, there is not a single horse to be found throughout the whole of Congo. A missionary declares that he had seen one only.^o Those which the Europeans had imported to multiply the species were either devoured by wild beasts or by the negroes, who like their flesh. The zebra is not rare in Congo, Benguela, and Loango.^p The negroes hunt it for food, and sell its skin to Europeans. Herds of two or three hundred buffaloes are often seen, which appear to be of the same species with those of the Cape. The hunt is dangerous. They are continually at war with the lion, the panther, and the

^a Zucchelli, p. 147.

^b Lopez, p. 33. De Grandpré, I. 34.

^c Battel, p. 995.

^d Lopez, p. 32. Carli, Relation of his Mission, p. 45. Germ. trans. Cavazzi or Labat, I. p. 199.

^e Scolopendras

^f De Grandpré, I. p. 37.

^g Tuckey asserts the contrary, p. 357.

^h De Grandpré, I. p. 20.

ⁱ Zucchelli, p. 286. Labat, I. 184.

^k Lopez, p. 33.

^l Proyart, p. 33.

^m De Grandpré, I. 34.

ⁿ Labat, I. p. 193—197. Battel, p. 984. Zucchelli, p. 145.

^o Proyart, p. 31.

^p Labat, p. 168. Lopez, p. 30. Carli, Battel, &c.

leopard. Oxen do not labour; the negroes do not attend to them, and most of the cows, left by ships at their departure, perish. The sheep brought from Europe are diminished in size, and their wool has become changed into a short hair; but they are very prolific.

Roebucks, wild goats, gazelles or antelopes, in great numbers, are to be found in those parts of the country which are near water. The size of the *empolanga* or *impolanca*^a is equal to the ox: he carries his neck upright, and his head high; his horns, three palms in length, crooked, knotty, and terminating in points, are made into wind instruments. Naturalists must decide whether this is not the *empophos* or elk of the Cape.^{b,c} Cavazzi distinguishes it from the *impanguas*, which he compares to wild mules; its flesh is eaten. The smallest species of gazelle is called *n'sosi*. Lopez is the only traveller who mentions rabbits, martins, and sables. M. de Grandpré adds hares, but the civet (*Viverra zibetha*)^d is here indigenous; the Portuguese, on their arrival, found some domesticated. Dogs rove in troops, and only utter a mournful howl; even those that are brought from Europe soon lose their power of smelling and barking.^e The wolves, whose flesh affords a meal to the negro, are their implacable enemies. These wolves, or rather jackalls, are very fond of palm oil, and have a quick scent. Too cowardly to attack men on the highway, they enter by troops into houses by night, and seize them while asleep. Their hideous cries in the deserts, spread terror among the caravans, who consider them as infallible presages of death. Zucchelli speaks of them under the name of *mebbie*, wild dogs, and distinguishes them very precisely from wolves.^f Another species of wild-dog, with spotted skin, is also mentioned: These attack with fury flocks of sheep, goats, the largest cattle, and even wild beasts; they are probably hyænas. The ravages occasioned by leopards and panthers, called in the language of the country *engoi*, are not less considerable. There appear to be two species of *engoi*; the one prefers the open country, the other the forests: the latter is the most formidable, from its sudden irruptions into inhabited districts. The *n'sosi* and the *gingi*, resemble in some degree the wild-cat and the tiger-cat.^g

The variety of monkeys which sport upon the highest trees, is so great, that travellers have despaired of being able to reduce them to a catalogue. They abound particularly in the environs of the river Zaire. Europeans are particularly partial to a small monkey,^h with a long tail and blue face, remarkable for its great gentleness and docility.

The largest monkey of Guinea, called *chimpanzee*, or *kimpezey*, in the country,ⁱ *pongo* or *cujoes*, by the traveller Battel,^k and by naturalists, *Simia troglodytes*, is not found far from the equator.^l Its height is four feet, and there is no appearance of a tail. M. de Grandpré had an opportunity of admiring the intelligence and even the soul of a female, which was subject to the same peculiar complaints as women. This animal had learned to heat the oven: it was particularly careful that no coal should escape, and

set fire to the vessel; perfectly understood when the oven was sufficiently heated, and never failed to apprise the baker of this circumstance; and he, in his turn, entirely confided in it, hastening to bring his shovel as soon as the animal came to fetch him, without ever being led into an error by his informant. When they heaved at the capstan, it endeavoured to assist with all its power, like a sailor. When the sails were bent for departure, it mounted, of its own accord, the yards with the sailors, who treated it as one of their own crew. It would have taken charge of the ear-rings,^m a most difficult and dangerous service, if the sailor who was destined to that particular post had not refused to give it up. It belayed the shroudsⁿ as well as any sailor; and observing how the end of the rope was fastened to prevent its hanging, it did the same to that of which it had possession. Finding its hand caught, and held fast, it disengaged it without crying, or altering its features; and when the business was over, it showed its superior agility over the other sailors, by passing them, and descending in an instant. This animal died on the passage, owing to the brutal treatment of the mate. It bore this cruel usage with the greatest resignation, raising its hands in a suppliant manner, to implore a remission of the stripes they were inflicting. From that moment, it refused to eat, and died of hunger and grief on the fifth day, as much regretted as any one of the crew would have been.

The ancients appear to have been well acquainted with this monkey.^o It generally walks upright, supported by the branch of a tree, after the manner of walking with a stick. The negroes dread it, and not without reason, for it treats them harshly whenever they meet. If credit may be given to more than one missionary,^p a connexion between these satyrs and negresses, to whom they appear singularly partial, has really produced species of monsters.

We shall now proceed to trace a chorographic sketch of the countries, the physical condition of which we have above described: at first confining ourselves to the countries bordering on the sea-coast, and to those of the interior politically connected with them, whose limits are tolerably well ascertained; though, with respect to the geographical position of the whole coast, Captain Tuckey has discovered that a considerable error has prevailed.

From Cape Lopez to Cape *Padron*, it has been laid down a degree farther to the westward than its true situation. From Cape Lopez to the bay of *Saint Catherine*, a port seldom visited, the coast is very little known, and appears to consist of low land, covered with trees. The natives are in a miserable condition, and considered treacherous. Their chief acknowledges the sovereignty of Loango. The river *Sette* waters a country from which red-wood has been exported; at present, however, it is not frequented. At the mouth of the great river *Banna*,^q is the bay of *Mayomba*, where there is rather more commerce; the inhabitants are more civil, hospitable, and intelligent, than those of the other states; they procure the greater part of the ivory sold in the neighbouring ports; they can work in copper, and are acquainted with the gum-tree;

^a Lopez, p. 31. Battel, p. 972. Labat and Cavazzi, I. p. 26—160.

^b Zimmermann, Hist. de l'Homme, II. p. 109. (In German.)

^c The Elk of the Cape is the *Antelope Oreas*.—Cuvier.—P.

^d The civet is the *V. civetta*, L.

^e Battel, p. 982 and 954. Labat, I. p. 168.

^f Zucchelli, p. 293. Labat, I. p. 167.

^g Labat, I. p. 177.

^h The little mona.

ⁱ De Grandpré, I. p. 26.

^k Purchas, p. 982.

^l Zimmermann, Hist. de l'Homme, II. p. 170.

^m "Empointure," literally, the fastening the upper corners of the sails to the ends of the yards by the ear-rings.—P.

ⁿ "Hauts-bans."

^o Ælian, XVI. p. 15. Galen, Adm. Anat. I. p. 2. and VI. p. 1 Herod, IV.

^p Lopez, p. 32. Labat, I. p. 174.

^q Battel, p. 981.

but it is not true that the mountains of *Mayomba* contain gold: in that case, the natives would have worked the mines. Their chiefs are subordinate to the kingdom of *Loango*, which extends about fifty marine leagues from north to south, and sixty from east to west; but it contains, with its dependencies, at most only six hundred thousand inhabitants, so greatly has the slave-trade drained its population.^a The country round the bay of *Loango*, exhibits mountains of a red colour, tolerably steep, and covered with palms. The city of *Bouali*, better known by the name of *Banza-Loango*,^b the capital of the kingdom, situated about a league from the coast, in a large and fertile plain, has long, straight, and clean streets,^c and fifteen thousand inhabitants, tolerably industrious.^d It has an agreeable appearance, on account of the palms and pisangs which shade and cover the adjoining country. The water is excellent; but the harbour is not sufficiently deep for large vessels, and its entrance is obstructed by rocks. There is here a trade for fine stuffs, manufactured in the city, from leaves. Provisions, fowls, fish, oils, wines, corn, ivory, copper, and dye-wood, inferior to that of Brazil; and, it is to be remarked, that the negroes of *Loango* are not very nice with regard to the merchandize imported, and readily take what would be refused in other places. But the natives, from policy, and perhaps by means of poison, which they well know how to administer, have given their country the reputation of being extremely unhealthy, which has prevented Europeans from establishing themselves there, or even from sleeping on shore. The slaves brought to this market are *Mayombas*, *Quibanguas*, or *Montequese*: the *Mayombas* are inferior in quality, but most numerous: the *Quibanguas* belong to a small tribe in the interior; they are among the finest negroes, well made, very black, with a pleasing countenance; their teeth are particularly beautiful: the *Montequese* are well made, but spoil their teeth by filing, with a view of rendering them pointed; they also make long scars upon both cheeks, and sometimes on the body.^e

A fact worthy the attention of travellers, is, that, according to *Oldendorp*,^f the kingdom of *Loango* contains black Jews, scattered throughout the country; they are despised by the negroes, who do not even deign to eat with them; they are occupied in trade, and keep the sabbath so strictly that they do not even converse on that day; they have a separate burying ground, very far from any habitation. The tombs are constructed with masonry, and ornamented with Hebrew inscriptions; the singularity of which excites the laughter of the negroes, who discern in them only serpents, lizards, and other reptiles. *M. Ehrmann*, finding it impossible to explain the origin of these Jews, doubts the reality of the fact; *Busching*, however, *Michaelis*, and *Zimmermann*, do not hesitate to admit their existence; *Bruns* considers them as descendants of the *Falashes*^g of *Habesh*, or *Abyssinia*; and *Sprengel* wishes them to be considered as the descendants of Portuguese Jews, who, having quitted their country, are no longer afraid to profess openly the religion of their fathers. Five leagues to the north of *Loango* is *Quilonga*, a river

of very difficult access, whither trading vessels sometimes resort.

The kingdom of *Cacongo*, by sailors generally called *Malemba*, from the principal port, situated about sixteen leagues south of *Loango*, is famous for the excellent slaves formerly obtained there; it abounds in fruits and vegetables, kids, pigs, game, and fish.^h The king dines alone in public, surrounded by a numerous suite; but, as soon as he prepares to drink some palm wine, every one present is obliged to prostrate himself on the ground, lest the king should die if any one of his subjects should witness his drinking.ⁱ While sitting in the quality of judge, form requires that every judgment given should be followed by a draught of wine, with a view of refreshing his majesty. *Kingele*, the capital of the country, is about thirty leagues from the coast; it consists of several thousand huts, over which palms and other trees wave their verdant heads.

The bay of *Cabinda*, situated five short leagues to the south of *Malemba*, often gives its name to the kingdom of *N^o Goyo*, otherwise *En-Goy* or *Goy*. It is a very fine harbour, called the *Paradise of the Coast*, and the most agreeable situation of all the surrounding country.^k The sea is always smooth, and debarkation very easy. The Portuguese, after having, at different periods, endeavoured to establish themselves here, made a last attempt during the American war, and opposed by force the first vessels which came to trade at this port, after the peace of 1783. The French government sent an expedition commanded by *M. de Marigny*, who destroyed the fort, and made the trade free. The country, in general, is very fine, extremely fertile, and contains many beautiful spots. The capital is at a distance of two days journey in the interior.

The slaves from this port consist of *Congos*, *Sognos*, and *Mondongos*, whom the blacks call *Mondongonese*.^l The *Sognos* are generally copper-coloured, large, and tolerably well made. The *Mondongonese* are both handsome and of good dispositions; but they are accustomed, like the *Montegnese*, to whom they are neighbours, to cut their faces so as to make large scars; their teeth also are all filed. They likewise score their breasts in various symmetrical forms, allow the skin to swell before it heals, that it may be raised above the edges of the wound, and thus form a sort of embroidery of which they are very vain. The women also lacerate their neck unmercifully for the sake of this supposed beauty. They have besides, the folly to inflict three large wounds on the belly, and to make the skin swell, so that three large transverse protuberances may be formed upon this region. They never cease to cut and to heal the wound alternately, until it has acquired the extent desired. Many blacks, chiefly among the *Mondongonese*, are circumcised, but they do not appear to attach to it any religious idea.

After crossing the *Zaire*, you immediately enter the kingdom of *Congo*, bounded on the south by the river *Danda*, by the sandy deserts and the lofty mountains of *Angola*, on the east by the countries almost unknown of *Fungeno* and *Matamba*, by the Mountains of the Sun, and

^a De Grandpré, I. p. 216.

^b Banza Loangeri; called by the natives Boori.—*Ed. Encyc.*—P.

^c Battel, p. 979. Proyard, p. 204.

^d De Grandpré, I. p. 68.

^e *Ibid.* II. p. 13.

^f Oldendorp, *Histoire de la Mission*, I. p. 287.

^g Falasja.

^h De Grandpré, II. p. 22—25.

ⁱ Proyard, p. 129.

^k De Grandpré, II. p. 26.

^l *Ibid.* II. 37. et suiv.

the rivers Coanza and Barbeli,^a which last appears to be the principal branch of the Zaire. Many pleasant islands rise from the bed of the Zaire. It overflows during the rainy season, and fertilizes the adjoining country; nevertheless, far from frequenting it, ships avoid it on account of the unhealthiness of the air and water. Tuckey found its risings to take place both in the wet and dry season, commonly to twelve feet of elevation in the wet, and seven feet in the dry season. From the latter increase, he considered the northern origin of the Zaire as demonstrated.^b Going towards the south is the river *Ambriz*, where there is a small roadstead. The port itself, within a bank of sand, can only receive two vessels.^c The river *Mapoula*, is still farther to the south. Vessels do not go thither, on account of the exactions of the Portuguese, whose last stations are found in this neighbourhood.

The country of Congo is extremely fertile, and produces two crops within the year, the one during the month of April, and the other in December.^d Besides palm trees, which are very fine, there are forests of jasmine, and wild cinnamon trees in great numbers. Hogs, sheep, goats, fowls, fish, and the tortoise, are in abundance.

The Portuguese, whose missionaries have been active since 1482, in preaching the Gospel to the inhabitants of Congo, have succeeded in bringing this kingdom under their sovereignty; but whether owing to weakness or negligence, they leave it a prey to intestine revolutions. In order to familiarize the negroes with the forms of European civilization, they have made the nobles adopt, instead of the native title of mani or lord,^e the titles of duke, count, and marquis, and have divided the kingdom into six provinces, viz. Sogno, Pemba, Batta, Pango, Bamba, and Sandi. Sometimes they reckon only five: San Salvador, the residence of the king; Bamba, Sandi, Pemba, and Sogno. Bamba and Sandi are dutchies, Sogno, a county, and Pemba, a marquise. Each of these provinces has a banza, or residence for the chief.^f

The capital of Congo, called by the Portuguese San Salvador, forms, with its precincts, a particular district, under the immediate government of the king, and is bounded by Sogno, Sandi, and Pemba. It is situated very far in the interior, upon a high mountain containing mines of iron. Its position is extolled as one of the most healthy in the world.^g Its streets are wide, and it has many squares symmetrically planted with palm trees, whose perpetual verdure forms a pleasing contrast with the whiteness of the houses, which are washed with lime both within and without. Its population is subject to great variation, in consequence of the revolutionary tumults which are inseparable from the accession of a new king. At the beginning of the 18th century, when Zucchelli visited the city, it presented a heap of ruins.^h On the summit of the mountain there is a fort, which was built by the Portuguese soon after their arrival, and which now encloses the king's palace with its dependencies. There are still some remains of churches formerly built by them. The dispersed Europeans, estimated at forty thousand persons, have established themselves in other situations, diffusing among the natives necessary and useful arts.

^a Labat, p. 22.

^b P. 223. 342. 343.

^c De Grandpré, II. p. 41, &c.

^d Labat, V. p. 160. Falconbridge's Account, &c. p. 55.

^e Lopez, p. 34.

^f Labat, V. p. 129. Carli, p. 36. Lopez, p. 39.

^g Wadstrom, Essai sur les Colonies.

The province of Sogno or Sonho, to the west of San Salvador, between the Zaire, the Ambriz, and the sea, has a sandy and dry soil, very favourable, however, to the growth of palms. It has good salt pits along the seashore, which are very productive to its prince. Times of scarcity, which frequently occur, do not diminish the natural gaiety of the inhabitants. This scarcity, joined to a superabundant population, has forced many to quit the country, and to establish themselves in Cacongo, on the north side of the Zaire. M. de Grandpré describes them as quarrelsome, morose, treacherous, and cowardly: one thing may be considered as certain, that they are very ill-disposed towards Europeans of every description.ⁱ

Bamba, also situated on the coast, between the rivers Ambriz and Loz, to the south of Sogno, and west of Pemba, is one of the great and fertile provinces of the kingdom. It has numerous salt pits, and fisheries of cowries.^k Its mountains, rich in metals, extend as far as Angola.^l

The province of *Pemba*, situated in the centre of the empire, is watered and fertilized by the rivers Lelunda, Kai, and Ambriz. Its proximity to the capital gives a stimulus to activity and industry, and renders the inhabitants secure from those persecutions to which the other provinces are subject from their governors.

Batta, situated to the east of Pemba, and north of the burnt mountains, is of considerable extent. It is asserted that the inhabitants, generally called *Mosombi*,^m have, from the natural goodness of their disposition, adopted the Christian religion with more zeal than all the other Congos. Nevertheless, and probably on account of these sentiments, they are generally at war with the neighbouring pagan districts, particularly with the formidable Giagas. Their governor has the sole permission of maintaining musketeers taken from among the natives, while all the other governors of provinces are compelled to employ Portuguese troops.ⁿ The Mosombi can raise from seventy to eighty thousand men.

The province of *Pango*, is bounded on the west by Batta, on the south by Dembo, and the mountains of the Sun, on the east by the river Barbeli, and on the north by Sandi.

Sandi, to the north-east of St. Salvador, is bounded on the north by the river Zaire, on the south-east by the provinces of Batta and Pango, on the north-east by the kingdom of Macoco and the Crystal mountains, at the foot of which the Bancoar empties itself into the Zaire. The country is well watered and rich in metals, particularly iron. The mountains to the north of the Zaire, near the great water-fall, where the Dukes of Sandi exercise a precarious authority, contain mines of yellow copper, which is sold at Loanda. The tranquillity of this province is frequently disturbed by the insubordination of the district chiefs, who revolt against the Duke. The Giagas and other savage tribes, by their frequent inroads, keep up the ferocity of their habits. Merchants, however, carry on a profitable trade by bringing salt, cowries, as well as Indian and European goods, in exchange for ivory, skins, and stuffs.

Besides these six provinces, there are others more or

^h Zucchelli, p. 345.

ⁱ Labat, I. p. 29. De Grandpré, II. p. 35.

^k Labat, I. p. 26.

^l Lopez, p. 28.

^m Labat, I. p. 35.

ⁿ Lopez, p. 37.

less important, viz. *Zuiona*, *Zuia Maxondo*, *N° Damba*, *N° Susso*, *N° Sella*, *Juva*, *Alombo*, *N° Zolo*, *N° Zanga*, *Marsinga*, *Mortondo*; these are in a great measure uncultivated, deserted, or occupied by savage nations, who lead a wandering life in the midst of forests, or in the narrow passes of inaccessible mountains.

The province of *Ovando*, on the confines of Angola, was formerly subject to the King of Congo, but the chiefs have withdrawn themselves from the authority of their lawful sovereign, to place themselves under the protection of the Portuguese, who honour them with the title of Duke. The *Dombi* have also been influenced by this example, and by the arts of the missionaries.

The different meanings attached to the name of *Angola*, have caused some confusion in the accounts of travellers in Lower Guinea. This name is frequently given to all the country situated between Cape Lopez Gonsalvo and St. Philip de Benguela, viz. from 0° 44' to 12° 14' of southern latitude. The Portuguese, however, ever jealous of their colony of Loanda-San-Paulo, do not readily allow access to strangers, who, consequently, scarcely advance towards the south beyond Ambriz in 7° 20' of latitude; it is the coast therefore, from this port to Cape Lopez, to which the name of Angola is generally given in commerce.^a

The kingdom of Dongo, Angola, or N° Gola, of geographers, is bounded on the north by the river Danda, on the east by Matamba, on the south by Benguela, and on the west by the sea. Before its conquest by the Portuguese, its boundaries extended from 8° 30' to 16° of south latitude.^b It is a very mountainous country, and little cultivated. From May to the end of October, no rain falls. Its dry and stony mountains have no springs; fresh water therefore is very scarce. The idea of making cisterns is beyond the narrow understandings of the natives; the industry of the more provident among them, is confined to the hollowing of troughs from the trunk of the Aliconda, in which they preserve rain-water. The Portuguese having been unable to convert these people to Christianity, content themselves with enrolling them for military service. The garrisons of the greater number of their forts consist of Angolese, whom, however, they do not instruct in the use of fire arms. With the view of attaching them, they have given to the natives some privileges, the most important of which is, the appointment of their governors or viceroys. Salt, wax, and honey, are the principal productions of the country.

Quitama holds the first rank among its provinces. It is situated at the mouth of the Coanza, a rapid and deep river, which vessels may ascend to the extent of forty leagues. It abounds with the hippopotamus. *Sumbi*, the second province, is watered by the rivers Nice, Caiba, and Catacombole. Fine pasture grounds are seen occupied by serpents, and wild beasts. Some islands, situated at the mouth of the Catacombole, are cultivated and populous. They breed numerous herds of horned cattle.^c

In arriving from the north, on the coast of Angola, we first meet with the city of *Loanda-San-Paulo*, the capital of the Portuguese settlements in the west of Africa. It is situated at the bottom of a gulf, at the mouth of the river

Bengo, and has a good port, defended by batteries and by a garrison of malefactors. The city is built partly upon the sea-shore, and partly on an eminence which commands the country. Regular sea-breezes moderate the summer heats. According to Raynal, its population is from seven to eight hundred whites, and three thousand free negroes or mulattoes. Earlier and more probable accounts, estimate the number of whites and free men of colour at three thousand, without determining the number of black slaves who form the principal wealth of the inhabitants; one proprietor often has more than a hundred in his service. Almost every slave understanding some trade, they work for the profit of their masters.^d There is a tribunal of the inquisition, a bishop, many convents, and churches in every respect worthy of the devout Portuguese. Nothing can equal the magnificence with which the saints' days are celebrated. The rich inhabitants have built elegant country houses on the banks of the Coanza, the Bengo, and the Donda, which diversify the prospect over a circumference of forty leagues.

The island of Loanda shelters the port, and supplies the city with good water. It is rendered remarkable, by the fine brown, brilliant, and much esteemed cowries, which are fished solely on account of the king of Portugal. The suspicious jealousy of the Portuguese conceals, under an impenetrable veil, the commerce and industry of this place. But it appears from positive data, that Loanda communicates by land with Mozambique, by means of caravans, which coast along the river Zambese.^e

Benguela, although equally subject to the Portuguese government, has retained the title of kingdom, and some insignificant privileges. It extends from the rivers Cube-gi and Coanza, as far as Cape Negro. Its eastern limit is formed by the river Cumeni. Its interior, hilly and rugged, conceals prodigious numbers of elephants, rhinoceroses, zebras, and antelopes. The oxen and sheep are of an extraordinary size; but the extreme droughts, the wild beasts, and the incursions of the Giagas, have considerably diminished their number. There are excellent salt pits in Benguela.

The province of *Lubolo*, on the confines of Quissama, abounds in palm trees; numerous herds of antelopes feed under their shade.^f It sometimes gives its name to the whole territory comprised between the rivers Congo and *dos Ramos*.

The province of *Rimba*, abounds in corn, and has good fisheries. *Secla*, to the west of Bamba, is a hilly and well-watered country, rich in pasturage, and in excellent iron. The mountain rocks support, on their summits, many fields well cultivated, where the inhabitants breathe a pure and wholesome air.^g

The provinces of *Upper* and *Lower Bemba*, abound in horned cattle, tame as well as wild; the river *Latano*, called by the Portuguese *Guavoro*, or *Rio San Francisco*, which runs through them, abounds in fish, crocodiles, serpents, and the hippopotamus. The idiom of the people of Bemba is peculiar, and very difficult. They are prone to idolatry and superstition. The skins of animals and serpents, pierced with a hole for their heads, serve them for clothing.

^a De Grandpré, Introd. p. 23.

^b Bruns, Afrika, IV. p. 156.

^c Labat, I. p. 59.

^d Idem. V. p. 124.

^e De Grandpré, I. p. 223. (See hereafter the article Mozambique.)

^f Labat, I. p. 66

^g Tuckey, 352.

Tamba, bounded on the east by *Bamba*, is a level country intersected with rivers and marshes. *Impolancas*, and *impanguas*,^a are found there in considerable quantity. The source of the Congo, it is said, is at the bottom of a rock, surmounted by a Portuguese fort, which commands the province. The country of *Wacco*,^b consists of hills and fruitful valleys. *Cabezzo* abounds in metals, particularly in iron.

The Portuguese establishment of *St. Philip de Benguela*, on the river of that name, in a very unhealthy situation, is defended by a garrison of two hundred transported convicts;^c and contains only houses built with mud and straw.^d Old *Benguela*, is a post still more insignificant.

The kingdom of *Matamba*, lies between the limits of Congo and *Benguela*; towards the east, it is occupied by very high mountains and thick forests; the air is temperate, and the soil fertilized by the overflowing of the rivers. The chiefs of *Matamba*, formerly tributary to the kings of Congo, are at present independent. The shores and islands of the *Coango* and the *Coanza*, are almost the only cultivated parts of the country. The natives have little industry. They extract the iron of their territory, without knowing properly how to work it; for they purchase from strangers their implements of agriculture. Unwrought mines of gold are supposed to exist in the mountains.

Such is the account of those countries of southern Guinea hitherto known, and in some measure civilized; or, at least, regularly inhabited. We will now consider the physical, moral, and political condition of these people.

The negroes of Congo appear to be inferior in understanding to many other African tribes. They possess, however, a very good memory: but their sentiments, instincts, and desires, are gross; their passions quick and fierce; their manners, customs, and general mode of life, in their savage and primitive state, approach so near to animality, that it is not surprising they should have considered monkeys as belonging to their own species. Their stupidity is such, that they have never been able to comprehend the advantage of a mill. The women, who alone perform all the work, are obliged to pound the corn in a wooden mortar, and then to grind it in a hollow stone, by turning about another stone with the hand.^e They have not the least idea of writing; their time is divided into day and night, and the day into three parts. They do not, however, understand the period of a year, and reckon by lunations. Their navigation is confined to fishing, for which they make use of boats made of the trunks of trees hollowed out by fire, without any form on the outside. Their nets, which they have attempted to form after the European manner, are equally bad. The coast, fortunately, abounds in fish. They are equally inexpert in hunting; have no trained dogs, and can only proceed by the eye. The sportsman is some time adjusting his piece, turns his head and fires, drops the piece, runs off as quickly as possible, returns some time after to fetch his gun, which he approaches with trepidation, and if he finds the game, carries it off in triumph. Their courage is not more conspicuous in the wars which

they wage among themselves. An army of two hundred men is considered a large and very uncommon armament.^f Born in a state of brutish ignorance, at the same time puffed up with pride and vanity, these degraded beings are, of all masters, the most severe, barbarous, and capricious; their slaves approach them on their knees; and the great, who alone wear slippers, treat the people with an extreme haughtiness; they are compelled to bow their servile faces in the dust. All the people look up to their kings as the greatest monarchs of the globe; these are proud of their prerogative to wear boots when they can procure them, and are often ludicrously dressed in some worn-out European uniform, which hardly covers their disgusting nakedness. They consider their country, which is disputed with them by wild beasts, as the most beautiful, delightful, and highly favoured in the world.

The most unrestrained polygamy exists in Congo, and the whole influence of the Christian religion has been confined to the discouragement of incestuous marriages. The holy state of marriage, the mutual affection of man and wife, and the enjoyments of domestic happiness, are foreign to the ideas of a Congo; surrounded by a numerous progeny, he feels no attachment to his children.^g Drunkenness, noisy music, indecent dances, and sleep, are his enjoyments. Useful works are performed by females, and numberless slaves. A rich man sometimes gives a *vingaré*, or public dinner, to the whole village; on those occasions they drink largely of *melaffo*, or palm wine. Their dress is highly fantastical; the princes and lords of Congo, *Batta*, and *Sogno*, are proud of dressing in a black hat.^h The great of *Lubola* attach small bells to their girdle. The inhabitants of the countries watered by the *Coango* and the *Coari*, file their teeth until they become as pointed as those of the dog. Some have four of them drawn. In the kingdom of *Matamba* they universally retain the ancient custom of making incisions in their flesh.

Among the singular customs in Congo, may be remarked that of husbands going to bed when their wives are delivered. *Zucchelli* mentions this circumstance. It is, moreover, singular, that this custom should be found among so many different nations; the moderns have observed it in *Bearn*, in *Tartary*, *India*, and a considerable part of *America*.ⁱ The ancients attest its existence among the *Cantabrians*,^k the *Corsicans*,^l and the nations near the *Euxine sea*.^m It is difficult to explain how the same custom should have been carried to nations so far separated, and such complete strangers to each other. On the contrary, it is easy to explain its origin, by observing the general character of savage nations. The birth of a child is a happy event, and the friends of the parents generally wish them joy on the occasion. In civilized countries, it is the mother who receives the congratulations, in a bed-chamber highly decorated. Among savage nations, where the woman is only a slave, these congratulations are addressed to the husband. For the purpose of receiving these with due solemnity, he reclines either on his hammock or on his bed; he continues there as long as the visits last, and, from idleness, some days longer. That he may not die of hun-

^a Described page 100, among the gazelles of Congo.

^b *Oacco*.

^c *Zucchelli*, p. 124.

^d *Labat*, t. V. p. 119.

^e *Bruns*, *Afrika*, t. IV. p. 57.

^f *De Grandpré*, I. 130, &c.

^g *Cavazzi* and *Labat*, t. II. p. 427.

^h "In a white cap."

ⁱ *Piso*, de *Indiæ utriusque re naturali*, l. I. p. 14. *Pauw*, *Recherches philosophiques sur les Américains*, II. 232.

^k *Strab. Geog.* III. 250. (*Almelov.*)

^l *Diod. Sic.* l. V. p. 250. (*Wessel.*)

^m *Apollon. Rhod.* II. v. 1013. *Valer. Flaccus*, V. v. 150.

ger, it is necessary that his wife should feed and take care of him.^a

The king of Congo's court is a wretched imitation of the ancient court of Lisbon: the monarch, sitting on his throne as in Europe, is attended by black counts and marquises, attired in coarse imitations of the European costume and orders. The Pagan kings have retained the barbarism of their indigenous pomp. The King of Loango in former times, once a-year, and with great ceremony, went out to meet the whole nation, to give a solemn order to the rain to water the earth. It sometimes happened that the clouds obeyed; the people then returned well convinced of the power of their prince.^b The people having now, however, become more intelligent and less docile, the king has ceased to order rain and fine weather. One of his ministers at present performs this duty; but that he may shelter, in some measure, his responsibility, he carefully defers ordering the rain until it has fairly begun. The Congos say their country once formed a mighty empire, the chief of which divided it amongst his three sons, giving to one both sides of the upper part of the river as far as Sangalla; to the second, the left or northern bank, *Blindy N' Congo*; to the third, the right bank, *Bunze N' Yonga*. The two latter are still considered as separate viceroalties. The English, in 1816, found Congo divided into a number of petty states, or chenooships, held as a kind of fiefs under some real or imaginary personage living in the interior, nobody knows exactly where. Tuckey^c could only learn that the paramount sovereign was designated *Blindy N' Congo*, and resided at a *Banza* in the interior, named Congo, six days' journey south from the river, where the Portuguese had an establishment, and where there were soldiers and white women. This place is no doubt the *San Salvador*^d of the Portuguese; and whether or not this prince, as is stated, be quite independent, all the kings of the provinces situated between Cape Lopez and the river Zaire, do homage to the king of Loango, and pay him a tribute in women. In other respects they are despotic, without opposition: in fits of ill humour they sell their prime ministers to Europeans, and crouch before their vassals when they dread their power. They dispose of the liberty and lives of all their subjects, and tax them as they please. A black was fined exorbitantly for having once taken a fancy to use an old sedan chair given him by a captain.^e These kings thus indemnify themselves for particular privations enjoined them by a fundamental law of the state. They are obliged, at least in public, to forego the sweet enjoyment of brandy, since they are not allowed to receive, wear, or even touch any foreign production; metals, arms, and works in wood, excepted. Their domain consists of all the land not occupied, and of some villages. The throne is every where hereditary, except in Loango, where all the princes of the different dependent states may aspire to the supreme power, depending on the choice of an electoral body, composed of the seven principal officers of the crown, with two associated lords; which, in the interim, forms a provisional government. By this very ancient arrangement, the complicated nature of which indicates some legislator, or conqueror, more sagacious than the ordina-

ry inhabitants, as its author, the feudatories have a lively interest in the support of a throne to which they may aspire; and these ties will not be easily dissolved. To be prince-born, one must be the issue of a princess; it is the mother, and not the father, by whom he is ennobled: the latter cannot be certainly known. The princesses also have a right to choose their husbands, and to repudiate them at pleasure, by inviting another to the honour of their bed. The princes do the same, but their children, who are not the offspring of princesses, have no rank, and may be sold by such of their brothers and sisters as enjoy this advantage. The husband of a princess has the rank of prince during the period of his living with her, and retains his rank for ever if she dies during this interval. If a prince is married to a princess, they lose the power of being divorced. Princes in general enjoy great privileges: they cannot, however, hold any office under the government.

At Loango, the principal officers of government, next to the king, are the *Great Captain*,^f first minister and chief justice; the *Mafook*, minister of commerce; the *Maquimbe*, inspector-general of the coast, or port-captain; the *Monibanze*, minister of finance; the *Monibele*, messenger of state; the *Soldier King*, generalissimo of the army, and grand executioner. In the other states, the presumptive heir to the crown is the second personage; he is called *Mambook*. His situation is in many respects more agreeable than that of the king himself. After him comes the *Mwage*, prime minister, whose authority is restricted by that of the *Mambook*, and the princes-born; the *Mafook*, the *Maquimbe*, the *Monibanze*, the *Monibele*, the *Great Captain*, who here enjoys the same authority as the *Soldier King* of Loango; then the governors, and the lords paramount.^g

The ranks of society, without regard to office, are thus arranged: the king and his family, the princes-born, the husbands of princesses, the lords paramount, brokers, slave merchants, and vassals. These last constitute the mass of the people. They are obliged to serve, follow, and defend their master, who, on his part, lodges, clothes, and protects them. The merchants compose that immense body, who traverse the whole of Africa in search of captives, whom they transfer to Europeans through the medium of brokers. These, although belonging to all the classes, are in high repute, on account of the distinction with which men so useful are treated by Europeans. The lords paramount are land proprietors, not attached to the soil, although serfs of the king and the princes-born.^h

The king is supreme judge; but as the lords make every endeavour to obtain justice for their vassals, their complaints seldom reach the throne. The lords of the complainants and defendants are the first judges. According to circumstances, the decision of the *Mafook*, or *Maquimbe*, or a *Governor*, or even of the whole body of magistrates, is necessary. The court is public. The spectators, without arms, if the suit is not criminal, range themselves in a circle round a carpet, upon which are placed, at the expense of the parties, bottles of brandy proportioned to the number of assistants; for, no brandy, no trial.ⁱ Every person has a right to harangue, and each pleading is accompanied

^a Beckmann, Boulanger, Pauw. See our *Annales des Voyages*, II. p. 366.

^b Lopez, p. 14. Battel, p. 980.

^c Tuckey, 196.

^d *Ibid.* 350.

^e De Grandpré, I. 190, &c.

VOL. II.—NOS 67 & 68.

^f In Portuguese, *capitão-mór*, whence, by a gallicism, French travellers have made him "le capitaine mort!!!"

^g De Grandpré, I. 182.

^h *Ibid.* I. 104, &c. Also, Tuckey, 366. who names them "*Foomoos* in fact, the yeomen of the country."

ⁱ De Grandpré, I. 124, &c.

with libations mingled with songs. As soon as the sentence is pronounced, the bottles are emptied.

Traditions and usages are substituted for written laws. The only capital crimes are stated by Tuckey to be those of murder and adultery. Considering the alacrity with which, from the prince to the *Foomoo*, or private gentleman, they all prostitute their wives and daughters to Europeans, and the resentment expressed by the latter, on the occasional refusal of their favours, the capital punishment of adultery might with some reason be disputed; but the English, in the Congo expedition, were in one instance witnesses to its actual execution.^a The criminal was, however, first offered for sale, and the probability is, that the great demand opened by the slave trade, has commuted many capital punishments of former times into the more profitable infliction of foreign slavery. The son of a *chenoo*, or chief, however, cannot compromise his honour; he is held bound to kill the aggressor; and, should he escape, may take the life of the first relation of the adulterer he meets. The reaction produced from this unjust revenge upon relations, which extends even to poisoning and theft, is one of the grand causes of the constant animosities subsisting between neighbouring villages. Poisoning (the only kind of private murder among them) is so frequent, that the master of a slave always makes him taste his cooked victuals before he ventures to eat of them himself; it is well known that the husbands of princesses, who, though chosen against their wills, are by law subject to divorce or slavery, at the pleasure of the latter, frequently rid themselves by this means of their wives and their fears at the same instant. In general, if the offender has committed a theft, he must refund; if the debt amounts to the value of a slave, he becomes one himself, in default of payment; if he has committed adultery, he must pay to the outraged husband the value of a slave; if he has shed blood, he must either give a slave, or the value of one, in order to prevent his being sold himself; if he has fraudulently sold a black, to whose person he had no claim, or committed a homicide, he is immediately rent in pieces by the people, and his body left to be devoured by birds of prey. Thanks to the universal slavery, *here every man has equal rights*. The princes-born alone cannot be sold; the lords paramount, when condemned, are allowed to deliver up one of their vassals in their stead.

When the criminality of the accused is not sufficiently manifest, he is subjected to the ordeal of poison and of fire, which is directed by the priests. It is probable that these jugglers have some means of rendering the potion presented to the accused either mortal or harmless, according to their pleasure, and of managing the heated iron in such a manner that it may touch and not burn the skin of their friends.^b One of the most singular proofs consists in obliging the two parties to drink the infusion of a root called *ambondo*, which has a twofold operation; since this potion either acts by evacuation and secretion of urine, or exerts its influence upon the brain as a narcotic. The people wait to see which of these effects will be produced; the individual who speedily evacuates the potion is proclaimed victor; and his unfortunate antagonist, who, after

some time, not being able to return it, is seized with vertigo, is considered guilty. "He does not evacuate!" cries the mob, and immediately they assail him with blows until he dies.^c

It often appears singular to find among illiterate nations, idioms, in which syntax and grammatical forms, ingeniously and artfully combined, indicate a meditative mind, at variance with the habitual state of these people. Are these the remains of an extinct civilization, of which every other trace has disappeared? Are they the efforts of some legislators superior to the rest of their nation? Are they the remains of ancient sacred languages, used by the people at large after the destruction of the tribes of priests, between whom they formed the bond of communication? In whatever manner it may have arisen, the language of Congo, of which those of Loango and Angola appear to be dialects, is distinguished by very copious and complicated forms. The different articles added to the termination of the substantive whose meaning they determine, the regular formation of derivatives, the numerous modifications of the pronouns, the great variety of moods and tenses of verbs, by which every thing relating to person and locality is expressed, the astonishing number of derivative verbs,^d the abundance of sonorous vowels, the absence of hard sounding consonants, and the softness of the pronunciation, conspire to make this language of an illiterate people one of the finest in the world.^e Apparently without any sufficient reason, and without seeming to know that the structure of his own tongue was most perfect when the nation was still involved in barbarism, the peculiar elegance and flexibility of the Congo language has been called in question by the editor of Tuckey's narrative. The affair, however, lies between him and the Congo grammarians we have quoted; our readers will be much more interested to know, that from a comparison of the works of the latter, with a pretty extensive vocabulary collected by Captain Tuckey, it appears,—1. That the languages of Angola, Congo, and Loango, are radically the same:—2. That they are nearly the same as those of the *Mandongo* and *Cambo* nations:—3. That all these are allied to the language of the nations on the coast of Mozambique, and to the dialect of the Caffres and Vetrjaanas.^f It follows irresistibly from these conclusions, that southern Africa has been originally peopled from one tribe; or, at least, that a constant and more or less intimate connexion subsists between its most distant nations.^g

The weapons of the Congos consist of an absurd mixture of bows, sabres made of hard wood, and some bad musketoons. They understand the mode of poisoning their arrows; their battle-axes have the form of a scythe, and must be formidable when wielded by a powerful arm. Some cover themselves with a shield, others with the skins of animals; there are some also who endeavour to give themselves a terrific appearance by painting their bodies with the figures of serpents and other formidable animals.^h The people of Loango, when marching to battle, paint the whole of their body with a red colour.

The indigenous superstitions of the Congos are too numerous to be all enumerated. They believe in the existence of some divinities called *Zambi*. The good principle is

fit of some one; *Salisionia*, to work for one other; *Salangana*, to be a skilful workman, &c. &c.

^a Hyacinthi Brusciotti à Vetralla regulæ pro Congensium idiomatis captu, &c.; Rome, 1659. Gentilis Angolæ instructus à P. Coacto Rome, 1661. Mithridates, by Adelung and Vater, t. III. p. 207—224.

^f Betjuanas. ^g Marsden, in Tuckey, 388, 389. ^h Cavazzi, II. 7.

^a Tuckey, 372.

^b Zucchelli, p. 215. Oldendorp, 296.

^c Battel, 983. See hereafter, in the article, Madagascar, a description of the ordeal of the Tanguin, p. 4 2.

^d For example, in the dialect of Loango, we have *Salila*, to facilitate a work; *Salisia*, to work with some one; *Salisila*, to work for the pro-

named Zamba M'Poonga, and the evil principle which is opposed to him, Caddee M'Peemba; they are said to have some obscure notion of a future state wherein they shall all be happy. The images of these divinities they denominate *mokisso*, and keep them in their temples.^a The common objects, however, of their devotion, are different kinds of fetiches, or substances supposed to possess a divine power. This is sometimes a bird's feather, a shark's tooth; occasionally a tree, a serpent, or a toad; the horn, the hoof, the hair, the teeth of different quadrupeds; the beaks, claws, skulls, and bones of birds; heads and skins of snakes, shells, and fins of fishes; pieces of old iron, copper, wood, seeds of plants, and sometimes a mixture of all or most of them strung together. The vilest things in nature serve for a negro's fetiche; like the witches' caldron in European superstition, they are a compound of every abomination. In the choice of these they consult certain persons called fetiche-men, who form a kind of priesthood. The fetiche, however, is not merely an amulet; prayers, abstinence, and penances, are enjoined to its worshippers. The fetiche-man, it seems, can give another more propitious fetiche in exchange of that which is too insensible to the interests of its worshippers; and he has the lucrative power of rendering sacred, or *fetiching*, as it is named in Africa, any part of any man's property he pleases. This power is in all respects similar to the *taboo* of the South Sea Islands, and not unlike the once terrible *interdict* of the Roman Pontiff. In a word, the fetiche is an amulet, a deity, and a guardian genius; and the rudest sculptures or carvings which refer to it are held sacred. Hence the famous fetiche-rock, a huge mass of stone on the banks of the Congo, covered with miserable attempts at sculpture, is held in great veneration.^b Fetichism is doubtless one great cause of the ignorance and immorality of the Africans. The Capuchin missionaries saw them worship a goat, which their pious zeal caused to be killed; but the negroes, although converted, were, nevertheless, alarmed on seeing the Capuchins roast and eat a divinity.^c The priests are called *gangas*; their chief, called *Chitomé*, is supposed to possess a divine authority; he receives as a sacrifice the first-fruits, and a sacred fire is constantly kept in his inviolable abode. In the event of his becoming ill, his successor is appointed, who immediately kills him with a club, to prevent his dying a natural death; which would afford a bad omen. Many other subaltern pontiffs work upon the credulity of the negroes; one heals all diseases; another commands both wind and rain; others understand bewitching the waters, or preserving the harvest. Drought is the inherent vice of the climate of Africa, and the frequent destruction of the hopes of the husbandman which occurs from this cause, might have given origin to the function of "Rainmaker," among a less superstitious population. Mr. Campbell, an intelligent missionary, met with several men of this profession in the Betjuana country, where they are in high esteem, that district being very subject to drought. They are generally the best informed men of the community, and this explains why their lucrative office is frequently forced upon them, though protesting all the while that they are incapable of producing rain. Others seem seriously to believe they possess this power. To procure rain, an ox is killed; the fat of it is chopped and

mixed with different kinds of wood and leaves of trees: the whole are then burned. The secret of the business is to gain time by various artifices, until the rainmaker sees clouds arising in that direction from which rain generally comes. His reward is very considerable. The *N'quits* are members of a sacred fraternity, who celebrate dreadful mysterious rites, accompanied with lascivious dances, in the deep recesses of forests. One order of magicians, called *Atombala*, pretend to the power of raising the dead; their jugglers practising upon a dead body in the presence of the missionaries, so far imposed upon them that they imagined they saw the dead move, and believed they heard some inarticulate sounds proceed from his mouth, which they attributed to the power of infernal spirits. May not this have been a galvanic operation?

The Christian missionaries struggle with very little success against these monstrous superstitions. There was a time, when the apostles of the faith boasted of themselves among their flock all the princes of Lower Guinea, particularly those of Congo, and of having likewise assembled round the sign of the cross all their subjects. The negroes, in fact naturally fond of imitation, easily conform to the example of their chiefs. They embrace the religion which they are commanded to follow; but abandon it as readily whenever the prince, equally inconstant as the people, returns to his former mode of worship.^d Sogno attracted the favour of the apostolic missionaries, and seemed perfectly to justify the confidence entertained by its inhabitants. According to some accounts, he had embraced Christianity, and their example was followed by the whole of Congo.^e Faithful to the new religion, they still continued to abhor idolatry in 1776. They transmitted the Christian precepts and mysteries from father to son, and assembled regularly on Sunday to sing psalms, although for want of priests their children could not be baptized, nor could they themselves celebrate the holy sacraments.

In 1816, Tuckey found the Christian religion nearly extinct on the banks of the Congo. At Noki, the crucifixes left by the missionaries were strangely mixed with native fetiches, and no trace of the Portuguese missions appeared on its northern bank. Even at Shark Point, in the centre of Sogno, the number of idolaters seemed to predominate. The few who professed Christianity came on board, loaded with crucifixes, and satchels containing the relics of saints. One Sogno was a priest, having a diploma from the capuchins of Loanda. He and another man had learned to write their own names, and that of Saint Anthony, and could also read the litany in Latin. He had one wife and five concubines,—a proof that the Portuguese missionaries have found it necessary to relax on a point which was one great cause of their former failures. This barefooted apostle contended, that Saint Peter, in confining him to one wife, did not prohibit him from as many concubines as he pleased.^f In 1813, the Sognos killed several of the missionaries, and cut off a Portuguese trading pinnace,—a fact which sufficiently confirms the testimony of M. Grand-pré, given below.^g Perhaps the Roman Catholic religion is in itself not well adapted to spread the light of civilization: yet we find that, where its missionaries have had the education and habits of gentlemen, they have seldom

^a Oldendorp, 320.

^b Tuckey.

^c Zucchelli, 223.

^d Labat, t. I. p. 37.

^e Proyart, 210.

^f Tuckey, 80. 277. 369.

^g Tuckey, 110.

wanted success. The jesuits of China and Paraguay may be cited as examples ; and the failure in Congo may fairly be attributed to the rude ignorance and bigotry of the clergy, chiefly monks, who were employed in the mission. May they afford a warning to other more liberal churches, engaged in the same noble, but difficult pursuit !

Respecting the countries situated to the north of the Zaire, the French missionaries, who proceeded from Nantes to preach Christianity in Loango, finally made choice of Cacongo, in 1768, for the principal residence of their ministry. They immediately endeavoured to gain the chiefs, and were very well received. Strong in the protection of the king, who lodged them in his palace, they established a chapel, and had the satisfaction to witness the negroes of Sogno, whom trade had brought to Kingale, come to assist at mass. Sickness, however, obliged these priests, in 1770, to quit the country. Three years after, others arrived from France, who fixed their abode in a plain near the village of Kilonga. In 1775, they discovered, in their neighbourhood, a Christian community from Sogno, who had obtained permission from the king of Cacongo to settle in his states, where they put a desert country into a state of cultivation. This colony formed a small province, containing about four thousand Christians. Manguenzo was the principal village. The French priests baptized many children, and were well paid in yacca-root,^a maize, peas, and goats. Their intention then was to establish a seminary of negroes. Don Juan, the chief of the colony, was about to build two churches. They were in want of sacred vessels, and other objects of the first necessity. To fill up the measure of their misfortunes, many members of the mission died, and others found themselves loaded with infirmities, about the year 1776, when the last reports were transmitted to Europe. A modern traveller, however, contradicts these flattering accounts, and positively asserts, that the Sognos have not in any degree seconded the zeal shown for their conversion ;^b according to him, these savages, naturally treacherous and cowardly, have become notorious by the poisoning and assassination of the missionaries ; and their universal character for perfidy has sometimes caused them to be loaded with irons when sold to Europeans. A French priest, says M. de Grandpré, in another place,^c was zealous in the performance of his duty ; but the picture of eternal life, however brilliant he might paint it, did not attract the Congos. The abodes of paradise appeared to them the less desirable, from their being denied there the use of brandy ; they complained much of this, and preferred a voyage to France, where they might enjoy that precious liquor ; and thus the missionary was unable to make proselytes. At length, one of them, overcome by the entreaties of the priest, consented to compromise, and engaged to go to paradise ; inquiring at the same time, how much merchandize he should gain by it. "None, whatever," answered the priest. "Let us understand each other," replied the black ; "I ask you how much merchandize you will give me for performing the voyage which you propose." The missionary, with mildness, repeated his answer in the negative, adding, at the same time, every thing that he could to persuade him. The other replied in his bad French : "Hold you there ! Think that I will go all that way for

nothing ? Give me goods for it." The missionary insisted at least upon his being baptized, but he could obtain no other answer than, "Give goods, give brandy." This, continues M. de Grandpré, is not the only instance of fruitless missions. He was witness to one which arrived from Rochelle, in 1777 ; it was composed of four Italian priests, full of zeal, who proceeded to the district of the Sognos, well loaded with presents, and every thing which might insure success ; in fact, two of them succeeded in introducing themselves, and wrote to the two others, requiring them also to come and join them. In about ten days, says our author, I saw them return, full of terror, even doubting their own existence ; they were many days in recovering from their fright : and we learn that, on their arrival, they had found their two former companions poisoned, dead, and buried. They expected to have met with the same fate, and one of them, wholly resigned, thought only of administering to himself spiritual comfort ; the other, however, being younger, more spirited, and tenacious of life, contrived to deceive the blacks, by persuading them that he had left behind him the greatest part of the presents intended for them, which would not be delivered, except to the two missionaries in person. The negroes, though determined upon poisoning them in their turn, at the same time were anxious to be in possession of the presents, and furnished them with hammocks to return to the coast. Thus ended the mission. In a climate, however, which is naturally so hostile to European constitutions, the fate of these newly arrived missionaries may readily be explained, without having recourse to poisoning, of which the known frequency could not but alarm the terrified and ignorant imaginations of the two survivors.

In duly considering these circumstances, the blacks are not probably so much to blame, as, at first sight, might appear ; the missionaries often brought upon themselves an unfortunate termination of their ministry ; had they confined themselves to persuasion, had they permitted the fathers of families to finish their career in their own way, and had applied themselves solely to the conversion of the young, success might in time have rewarded their zeal. This was not the case ; they were able to speak only a very few words of the language of these people, and could, therefore, neither explain nor reason with them upon any subject ; they nevertheless began by imposing upon them the most sensible privations, by wishing to subject them at once to all the peculiarities of the most rigid worship. Polygamy is generally prevalent in a burning climate, where the temperament of the inhabitants renders physical enjoyments necessary. Many missionaries have been known to employ force to deprive them of their wives ; and as persons in power generally afford examples for others, it was upon these that they first attempted to exercise their apostolic authority. What attachment could they expect from men guided by simple nature, who considered them as persons merely come to torment them, to impose upon them habits of slavery ; who only addressed them in the language of reproach, and were even willing to bring down upon their families trouble and confusion, by compelling them to repudiate their wives, and deprive their children of mothers.

It now remains for us to make a few observations on the

^a Manioc.

^b De Grandpré, t. II. p. 37.

^c De Grandpré, t. I. p. 91.

tribes altogether savage, which are to be found on the borders of Congo.

To the north-east of Loango, the earlier travellers place a nation of dwarfs, called *Matembas* or *Bake-Bake*. They are said, by them, to be of the size of children of twelve years old, but very stout; and to live in the interior of unfrequented forests, where they hunt elephants, the teeth of which they pay as a tribute to a prince called *Many Kesock*, who lives about eight days' journey to the east of Mayomba. Their women go into the woods to kill the great pongo monkeys with poisoned arrows.^a The name, Bake-Bake, is deserving of particular attention; it would seem to be identical with that of *Vac-vac*, or *Wak-wak*, which the Arabian writers, Masudi and Edrisi, give to a country which borders on *Sofala* and *Zanguebar*, and which consequently must include a part of central and southern Africa.^b In the interior, and more towards the east, is the country of *Anziko*, or *Anzikana*, *N'teka*, or *Great Angeca*,^c rich in metals and sandal-wood, but particularly famed for the barbarous state of its inhabitants. According to accounts probably fabulous, or at least exaggerated, of this distant and little known country, the *Anziquas* or *Anzi-quois*,^d deliver their sick prisoners to butchers, who expose their flesh for sale in the public markets. The natives, when tired of their lives, or misled by a false point of honour, are said sometimes to offer themselves for slaughter. Even parents and children devour each other. M. de Grandpré would appear to doubt this report; he even denies that there are in Africa any Anthropophagi. If the travels of Mungo Park, in countries where Mahometanism has reached, do not altogether refute the imputation of cannibalism, thrown out against the Africans, what can be said against the testimony of Levaillant, whose steps have been directed towards nations altogether barbarous, entire strangers to every species of civilization, and among whom he has not found any thing to justify an accusation so unjust? I can certify, for my own part, that the report of the blaeks of Congo eating human flesh, is false; these people are mild, timid, and indolent; they, in general, have a horror at the shedding of blood, and any man among them who wounds another to this extent, is condemned either to give a slave, or its value in merchandize; and if the aggressor has not the means, he is himself sold."^e

^a Battel, p. 983.

^b Hartmann, Africa. Edrisi, p. 103—107.

^c Battel, 981; Dapper, 553; Froyart, 8.

^d Anzikos.

The *Anziquas* are excellent archers, and handle the battle-axe in a superior manner. They are very nimble, courageous, and intrepid. They are considered faithful in their transactions with others. They sometimes carry for sale to the coast fine stuffs made of palm leaves and other materials, fabricated by them, also ivory and slaves, either procured in their own country, or in Nubia. The merchandize which they take in return consists of cowries and other shells with which they ornament themselves, salt, silk-stuffs, linen, glass ware, and other European manufactures. Circumcision is performed on both sexes, and they scar their faces as an ornament. The women are covered from head to foot; the great wear either robes of silk, or coats of cloth; the upper part of the body, among the common people, is naked, and their hairbraided. Their language is harsh and difficult, and appears to be merely a dialect of the common idiom found throughout the whole of lower Guinea.^f

The extent and situation of *Anziko* has been so indicated as rather to excite the curiosity of the geographer than to satisfy it. Dapper places *Mansol*, the capital, three hundred leagues from the coast, and describes the country as bordering on *Gingiro*, which is near Abyssinia. Pigafetta makes a river called *Umbre*, which enters the Congo, to flow in *Anziko*;^g he places towards the east or north-east the kingdom of *Wangua*, in which one might be tempted to discover *Wangara*. The king of *Anziko* is called the *Makoko*; under his government are thirteen vassal kings, among whom may be remarked the king of *Fungeni*, because this name recalls to mind the *Fungi* of Nubia, who, according to their own traditions, originally came from the southern parts of Africa.

The missionary Ockendorp, from inquiries made of the negroes of the West Indies, learned the existence of a nation called *Mokko*, bordering on the *Ibbos*, which may be identical with the inhabitants of *Anziko*, subjects of the *Makoko*. This nation lived in perpetual hostility with the *Evos*, who appear to be the same as the *Evis*, of whose existence Mr. Salt heard accounts at Mosambique, as inhabiting a country nearer the Atlantic than the Indian Ocean.

^e De Grandpré, t. I. p. 211.

^f Lopez, p. 14.

^g According to Pigafetta, the *Umbre* forms part of the eastern boundary of *Anziko*.—*Ed. Encyc.*—P.

BOOK LXX.

AFRICA.

Continuation of the description of Africa.—The Cape, and the country of the Hottentots.

The coast which extends from Cape Negro to the mouth of the united *Orange* and *Fish* rivers, 150 miles S. E. of *Angra Pequena*, is little known, of dangerous access, and scarcely inhabited. The Portuguese make Cape Negro in proceeding from Brazil to Benguela, and upon its point they have erected a marble column bearing the arms of Portugal. To the south of the Cape, the river *Bemba-Roughe*, half a league wide, empties itself into the sea; both its banks are inhabited. Cape *Rui-Pirez* still bears the surname *das Neves*, or of snows; this epithet, however, has originated from hillocks of white sand. Cape *Frio*, or cold cape; *l'Angra Fria*, or cold creek; also *la Praya das Neves*, or shore of snows, owe likewise their names to illusions or impressions of the moment. The high mountains terminate at Cape Serra. Many peaks of small elevation line *Walvisch* bay, or the bay of Whales, which appears to be the same as the *Angra do Ilheo* of the Portuguese. Little more is known of the small gulf of St. Thomas. The whole of this coast was visited in detail, more than twenty years ago,^a by an English expedition, with a view of selecting a place for transportation; they did not find one spot favourable for cultivation, or which did not appear too wretched even for criminals. Water that can be drank is very scarce; the rivers at their mouths have nothing but brackish water; and traces of verdure are only to be seen in partial situations.^b

Behind this inhospitable coast is marked the wandering horde of *Cimbebas*, whose prince is called *Mataman*, and that of *Macasses*, or rather *Makosses*, visited by a French traveller, whose narrative is very scarce.^c The existence even of the *Cimbebas* rests upon very doubtful authority. They appear, however, to be known by the *Makosses*, under the name of *Maquemanes*. The country of the *Makosses* has an extent of 30 leagues; hares are here so numerous that they may be killed by a stick. Horned cattle constitute the riches of these wanderers, who generally change the pasturage every two years, and who have no other clothing than the hide of an ox.^d They are circumcised at the age of eighteen, do not eat fish, and believe in magicians, in poisoners, and in an evil genius, who sends them rain, thunder, and storms. The sweet seeds of a plant which grows rapidly to the height of ten or twelve feet, are used by them to make a sort of cake; another

seed supplies them with an inebriating drink. The *Macasses* appear to enjoy the conveniences of life; those who have two or three thousand head of cattle are not considered rich. Theft is punished by them very severely. There is great decency in their external appearance. Every thing leads us to conclude that this tribe is a branch of the *Betjuanas*, or of the *Koussa Caffres*, who inhabit the eastern coast.^e Having passed the common opening of the *Fish* and *Orange* Rivers, we enter the country of the *Hottentots*, comprehended between the *Orange* and *Koussie* River; which, together with the territory of the colony of the Cape, forms only one *physical region*. The territory of the Cape of Good Hope has for its limits to the north and north-east, a vast chain of mountains, called the *Nieuwveld*, and *Roggeveld*, which separate it from the *Betjuanas*, *Bushmen*, and other independent tribes; to the east, the *Great Fish* River, the *Rio d'Infante* of the Portuguese, which separates it from *Caffraria*; to the west, the *Atlantic Ocean*, from the mouth of *Koussie* River, to the promontory of the Cape, or more properly to Cape *L'Aguillas*, about thirty miles farther south; and from hence again to the *Great Fish* River, its southern boundary is fixed by the waters of the *Southern Ocean*. Such were the limits assumed at the cession of this country to the English by the Dutch in 1806; but it appears that some circumstances connected with the attacks of the *Caffres*, have occasioned the eastern boundary of the British settlement to be advanced to the river *Keiskamma*,^f about thirty-two miles to the N. E. of the *Great Fish*. We design, however, under the *physical region* marked by the mouths of the *Orange* and *Great Fish* Rivers, to comprehend also the description of the interior, as far as is known; and what we are about to deliver may probably apply, not only to all the countries south of *Congo* and *Monomotapa*, but also to the whole plateau of *Mocaranga* and the deserts of the *Jagas*; further observation must decide this question.

The northern parts of this region of the Cape are watered by two large rivers, the lesser *Fish*, and the *Gariiep*, or *Orange*. The *Orange* may be said to commence at *Campbell's Dorp*, 600 miles directly east from its mouth; being formed there by the confluence of the *Yellow River*, which arises among the mountains at *Khing* and *Yattaba*, two sources, at least 350 miles to the N. E. of *Campbell's Dorp*, and 800 miles from the mouth of the *Orange*;—the

^a Before the first settlement in New Holland in 1787—8.—P.

^b Notes communicated by Sir Home Popham to M. Correa de Serra. Notes by Wood, in Dalzel's *Nautical Instructions*.

^c Lajardière, German translation in Ehrmann, *Bibliothèque des Voyages et de Géographie*, t. III. M. Boucher de la Richardière says,

in his *Bibliothèque des Voyages*, that he has not been able to find the original—we have not been more successful.

^d Ehrmann, III. 360.

^e See hereafter, book LXXI.

^f Campbell's Map, second journey into Africa.

Arrowsmith, or *Malalareen* River, the *Alexander*, the *Cradoc*. Formerly the *Krooman* River fell into the Orange 360 miles nearer its mouth; but it is now a dry bed. Mr. Campbell, in 1820, met with natives who remembered its flowing much farther into the desert. The free Hottentot country between the south bank of the Orange, and the *Koussie*, is called the Little *Namaqua* territory, whilst the region adjacent to its north bank, named the Great *Namaqua* territory, gives origin to the *Konup*, or *Fish* River, by many tributary streams which issue from its *Copper mountains*. The course is nearly south; it has been traced about 300 miles north from the point where it falls into the Orange to the country of the *Dammaras*. The western *Elephant*^a and *Berg* Rivers flow from east to west, but they issue from sloping declivities (terraces) near the western coast. Some other rivers, which run from north to south, issue from the sides of sloping declivities;^b their course is not long; the Great *Fish* River (*Groote Visch*) terminates the territory of the Cape. All these rivers, swelled by the periodical rains, carry along much mud and sand; forced back by the sea, these matters form bars at their mouth; or, in the dry season, these rivers, reduced to a small body of water, are lost in the sands, or among the rocks.^c Cascades, but little picturesque, interrupt the course of these rivers, which are only useful in fertilizing, by their inundations, a part of their banks.

Between the sloping declivities (terraces) improperly denominated chains of mountains, there are extensive plains destitute of running water, called *Karroos*. These plains are not wholly barren deserts, as represented by inaccurate travellers. Of these *Karroos*, the one best known, which is bounded on the east by the hills of *Camdebo*, has been described by two accurate observers, *Patterson*,^d and *Lichtenstein*.^e The soil of the *Karoo* is a bed of clay and sand, having the colour of yellow ochre from particles of iron: at the depth of one or two feet is found solid rock, of which this bed appears to be a decomposition. During the dry season, the rays of the sun reduce the soil nearly to the hardness of brick; fig-marygolds,^f and other fleshy plants, alone retain the remains of verdure; the roots of the *gorteria*, *aster*, and *berckheya*, as well as the bulbs of lilies, defended by an almost ligneous covering, scarcely survive under this sun-scorched crust. These roots, nourished by the rain in the wet season, swell under the earth; the young shoots develop themselves, and rise all at once, covering the plain, a short time only before so dry, with a bright verdure; very soon the lilies and fig-marygolds display their brilliant colours, and fill the air with the most exquisite perfumes. At that time, the nimble antelopes and the ostrich descend from the neighbouring mountains in great numbers. The colonists lead down their herds from all points, which acquire new vigour in this rich pasturage. The possession of these natural meadows is not disputed; they are sufficiently extensive for the purposes of every one. The colonists, indeed, seek the conversation of their companions, and endeavour to draw closer the bonds of friendship and affinity to families from whom they are separated at other seasons by immense distances.

^a There is also an *Elephant* (*Olifants*) river on the south coast, a branch of the *Ganritz* river.—P.

^b "They issue from the sides of the last or outermost terraces of the great plateau of S. Africa."—P.

^c *Lichtenstein*, *Voyage au Cap*, I. passim.

^d *Patterson*, *Voyage*, trad. de *Forster*, 40.

^e *Lichtenstein*, *Voyage au Cap*, I. 193

The life of the *Karoo*, is a representation of the golden age for the people of the Cape. Only slight labour interrupts its uniformity, and renders it more lucrative; the children and the slaves collect the branches of two shrubs, called *channa*,^g from which potash is extracted. The adults are employed in tanning hides for clothing and shoes. The beauty, however, of the *Karoo* lasts only one month, unless some lingering showers continue to protract vegetable life. The sun's rays, during the month of August, on account of the increasing length of the day, have a destructive influence: the plants become dried up, the soil is hardened, and on all sides the desert reappears. Men and animals soon abandon these situations, henceforth uninhabitable. Such vegetables as the *Atriplex albicans*, and the *Polygalas*, which resist their influence, become covered with a gray crust; a powder of the same colour is spread over the fleshy plants, which continue to be nourished by the air. Every where is seen a parched soil, covered with a blackish dust, the only remains of vegetables dried up. It is thus that life and death succeed each other here in eternal rotation.

The mountains of this extremity of the African continent, are, as has already been observed, enormous declivities;^h they are the sections of those terraces by which the central plateau descends towards the sea. The direction of these mountains is generally from north-west to south-east; their termination is more abrupt towards the west and south than towards the east, where, being continued under the waters of the ocean, they form dangerous reefs. These mountains constitute the leading feature of the Cape territory. They consist of three successive ranges, parallel to each other, and nearly so to the southern coast, which trends to the north. The first range, *Lange Kloof*, or *Long Pass*, at the distance of twenty to sixty miles, runs parallel to the coast, widening as it proceeds towards the west.ⁱ The second, named *Zwarte Berg*, or *Black Mountain*, is considerably higher and more rugged, consisting often of double or even triple ranges. The belt of land interposed between this ridge and the former is nearly equal to that between the former and the sea; at an average, from twenty to sixty miles. It is, however, of considerably greater elevation. Beyond, namely to the N. W. of the *Zwarte Berg*, at an interval of 80 or 100 miles, soars the lofty *Nieuwveld's Gebergte*, the highest range of southern Africa, the summits of which, as it is said, are generally covered with snow. It must be confessed, however, that the intense light of this climate, reflected from the white clouds that often crown these distant summits, may frequently become a source of error.^k The greatest height of the *Nieuwveld's Gebergte* has not been measured, but has been supposed not less than 10,000 feet. The belt or plain between this, the *New-land Mountain*, and the *Black Mountain*, is considerably higher than the two above described, and hence we have said that Southern Africa presents a succession of terraces, from which its rivers descend to the sea. The plain next the latter is covered with a deep and fertile soil, watered by numerous rivulets, well clothed with grass, and a beautiful variety of trees and shrubs. Rains are frequent,

^g *Mesembryanthemum*.

^h *Salsola aphylla* and *Salicornia fruticosa*.

ⁱ "Falaises," bluffs.

^j Properly, it is the range next the S. coast, at a greater distance to the west, and approaching it as it runs east.—P.

^k *Campbell's Second Journey*.

and from this circumstance, the irrigation of its rivulets, abundant vegetation, and proximity to the sea, it enjoys a more mild and equable temperature than the other plateaus of the colony. The second pass, or terrace, contains a considerable proportion of well watered and fertile lands; but these are mixed with large tracts of arid desert, called Karroos. The third belt is named the Great Karroo; because, like the smaller, its soil is of the hard impenetrable texture we have just described; a vast plain, 300 miles long, and nearly 100 in breadth, without almost a trace of vegetation. Granite, which, on the western coast, is only found at the height of one hundred and fifty feet above the level of the sea, is found on the banks of the Kaiman river at fifty feet: flinty slate,^a which is met with only at the height of two hundred and fifty feet near the Cape, is continued into the sea on the shores of the bays of Plettenberg and Algoa.^b Sand-stone forms chains of great extent, among others the *Picquet Mountains*, in which the most elevated beds having been broken and cut assunder by some physical revolution, gives an appearance of towers and embattled walls. The shore of Table-Bay, from which the Table Mountain rises to the height of 3582 feet, by a declivity so gentle that it has been ascended on horseback from the south, is supported by a bed of ferruginous schist, in parallel furrows, in a direction from south-east to north-west, interrupted by veins of granite and quartz. Above the schist is a bed of ochrous clay, containing particles of brown mica; this proceeds from the decomposition of granite, which is found imbedded there in immense blocks, even at the height of five hundred feet above the level of the sea; then commence stratified rocks, composed of various kinds of sand-stone, traversed by veins of hematite. These beds of sand-stone support a mass of quartz a thousand feet high, grayish, shining, crumbling into powder, or degenerating into Sand-stone, according to the exposure. The mountain has no trace of shells, impressions, or petrifications.^c No lime-stone has hitherto been found. Iron ore is found in many places,^d but it has not been worked. Since the year 1685, Europeans have been acquainted with the rich ores of copper slightly worked by the Dammara Hottentots, which have given their name to the *copper mountains*.^e Springs of petroleum are frequent; the richest lands are often so much impregnated with nitrous salts, and so much covered by a crust from the efflorescence of these salts, as to be rendered unfit for cultivation.^f Common salt, equally abundant, is more useful to the inhabitants; they call the basins wherein the briny waters are collected, salt pans, (*sout-pan*.)

In the interior of the colony are found various mineral waters, of which the most esteemed are those called the hot baths; these are found near the Black Mountains,^g thirty leagues from the city. A spacious building has lately been constructed for the convenience of those who use the baths; it is divided into two parts, the one set apart for the whites and the other for the negroes.^h Another is described to the north of Orange River.ⁱ

^a "Schiste sablonneux," schistose sandstone.

^b Lichtenstein, I. p. 327. (In the text there is 1500, and 2500 feet; it this must be a mistake. See hereafter Barrow.)

^c Barrow, v. I. chap. I.

^d Thunberg, t. I. p. 129—157; II. 86. trad. allem.; Sparmann, 124. 601, trad. allem.

^e Patterson, 66. 123. trad. de Forster.

^f Lichtenstein, I. 108.

^g Zwartberg.

The country whose soil we have just described, enjoys the mildest temperature in respect to the heat. Fahrenheit's thermometer seldom rising above the hundredth degree. In a meteorological register^k kept at Cape Town, from September, 1818, to September, 1821, embracing a period of three years, the highest heat marked is 96°, the lowest 45°, Fahrenheit. The mean annual temperature scarcely 68°.—Of winter 61°, of summer 89°. Of the warmest month 79°, of the coldest 57½°, Fahrenheit. In short, it corresponds as nearly to Funchal, the capital of Madeira, in climate, as it does in latitude and longitude, though in an opposite direction. The mean annual temperature is the same; only the winters are something colder, and the summers warmer, at the Cape than in Madeira.^l Hence the Cape has, with great propriety, been named the Madeira of the southern hemisphere, and is a celebrated resort for the invalids of India, who frequently retire from this salubrious climate, with full renovation of their health and vigour. It may be doubted if so exact a correspondence between the isothermal curve, and the identical parallel of latitude in opposite hemispheres, is to be found any where else without the tropics. The barometer ranges from 29.6 to 30.54.—mean 30.18. Although the temperature is so mild, the winds produce very disagreeable effects. The season which is here called summer, continues from the month of September until the end of March; the wind blows from the south-east, and often with great violence. Nothing can be secured from the sands which it drives before it; they penetrate the closest apartments, and the best closed trunks. At this time it is not prudent to go out without glasses, lest the eyes should be injured. These winds begin soon after the Table Mountain is observed to be covered with a mist, which is called its mantle; they generally last four or five successive days, and are very distressing. From March to September, the north-west wind prevails; it is accompanied by rains, which are almost constant during the months of June and July. In different parts of the country the meteorological phenomena are much varied, according to the direction and height of the mountains of the interior. The higher chains of mountains attract the clouds.^m In the country of Houtiniqua,ⁿ on the south-east coast, during the month of October storms of rain are frequent, accompanied with dreadful peals of thunder.^o

The enthusiasm of botanists, excited by the great number of new plants furnished by the Cape, has represented the vegetation of this country in brilliant colours. The philosopher, it must be admitted, finds more wonders to admire in this, than in any other country; it is from hence that we have received the most magnificent plants that adorn our greenhouses and gardens; many others, however, not less beautiful, continue strangers to European culture. The class of bulbous plants may be considered as one of the most characteristic of the Cape flora; since no where else are they to be found so numerous, so various, and so beautiful. The botanist may here admire the

^h Manuscript Notice of the Cape, by M. Epidariste Collin, of the Isle of France.

ⁱ Campbell's Map, second journey.

^k Colebrooke's State of the Cape in 1822, p. 370.

^l Humboldt's Isothermal Table.

^m Masson, Philos. Transactions for 1766, p. 296.

ⁿ Autiniquas Land.

^o Thunberg, t. I. 165.

numberless varieties of the *Ixia*, their brilliant colours, and exquisite scent; he will find it difficult to count the superb species of the iris, the moræa, the corn-flag, (*gladiolus*,) the amaryllis, the *hæmanthus*,^a and the *pancratium*, which, after the autumnal rains, embellish the fields and the foot of the mountains. During the other seasons, the *Gnaphalium*, and the *Xeranthemum*,^b display their red, blue, or silky white flowers; the sweet smelling *Geranium*, and a thousand other plants and heaths, vary this rich scene. Even in the midst of stony deserts are seen fleshy plants, the stapelia, the *mesembryanthemum*, the euphorbia, the crassula, the cotyledon, and the aloe. Some attain the height of trees, which, together with the weeping willow, or the different species of *Mimosa*, shade the banks of the torrents produced or enlarged by the rains. The silver-leaved protea imparts to the groves of the Cape a metallic splendour, while one of the numerous species of heath,^c gives the appearance of a carpet of hair. The Cape olive-tree, the sophora, and a tree like the ash,^d furnish some wood for joinery, but they are in want of building and fire wood. "Nevertheless," says a Frenchman who has visited the Cape four times successively, "forests of magnificent oaks exist on the east side of False Bay, in that part called Hottentot-Holland. The English builder-general at the Cape, and my friend Camille Roquefeuil, from whom I have received this account, have examined this wood with minute attention, and consider it the same as the Albanian oak,^e which, as is well known, is the best for building; on account of its quality and durability. If at some future period they should cut down these forests, the Cape will readily find a market for its woods; our islands will no doubt avail themselves of it for building and repairing ships."^f It is towards the east in particular, on the frontiers of the settlement, that forests are found. They have not yet been accurately examined. They furnish iron and hassagay wood, yellow wood, some species of zamia or sago palm;^g the guaiacum with scarlet flowers,^h and the *strelitzia-reginæ*, of incomparable beauty.

Such are the vegetable beauties of the Cape. It is true that the visit of every naturalist enriches science with some new species of shrub or plant; and the researches of M. Lalande in 1819, 1820, at the expense of the French government, are expected to add an immense catalogue to the individuals already known,ⁱ it must, however, be frankly acknowledged, that the vegetation of this African country does not satisfy either the eye or the feelings of an European. Rocks and sands every where prevail. The fields are separated by deserts; the green turf, scattered and thin, no where presents a close bed of verdure; the forests, filled with pointed trees, possess neither a delicious coolness, nor a solemn darkness. Nature is here more imposing than beautiful: she has more caprices than charms; and a plant, however elegant, when arranged neatly in the green houses of Europe, cuts a very different figure on a solitary mass of sand and clay, the general soil of the Karroo. Nature is said to divide her favours; and for the elegance of colour and structure which she has lavished on the Flora of the Cape, to have withheld that sweetness whose aroma

fills the gardens of Europe. Hence it is a common saying,^k "that in South Africa flowers have no smell, birds no song, rivers no fish;" the latter part of the remark is not quite correct; but it explains why the Dutch have bestowed the appellative of *Fish*, and *Great Fish*, on the two rivers which bound the territory. May not this inadequacy of the Cape sun to sublime the volatile and aromatic juices of vegetables, explain in some measure the acknowledged general inferiority of Cape raisins, wine, and brandy? The singular gratefulness of the Constantia wine is almost solely referable to a favourable peculiarity of situation.^l

It is to be lamented that the English government at the Cape have suffered the fine Botanic garden, and menagerie, established there by the Dutch, to fall into total decay. By encouraging the indigenous botany of South Africa, inestimable advantages might accrue to the agriculturists of the Cape, and the useful knowledge reflected from it to the mother country would amply repay her, should this rich colony be found unable or unwilling to support the establishment.

Culture has introduced many European plants. The vine, which was originally brought from Madeira, produces here an excellent^m wine. The plants of the muscadel vine brought from the south of France thrive well; the Frontignac and Lunelle wines procured from the Cape, are nearly equal in flavour to those from which they originate; finally, the famous Constantia, which is produced from plants originally brought from Shiraz in Persia, possesses a flavour not found in any of our wines. The pontac of Constantia is pure ambrosia; it is far superior to French pontac, which our connoisseurs nevertheless admire.ⁿ If the inhabitants of the Cape better understood their interest, and would abandon their beaten tracks, they would much increase the high character of their wines, and this colony, agreeable to Banks' plan, might become the great vineyard of England.

The Constantia wine, already so exquisite, does not seem susceptible of much improvement, but the other varieties, sold in England to the amount of 5000 pipes per annum, under the appellations of *Cape wine*, and *Cape Madeira*, have an earthy taste, a dilute flavour of muscadel, and in most instances, an undisguised taste of brandy. The first fault is said to be derived from the argillaceous soil on which the vine stocks grow, and with which the grapes may occasionally come in contact. It is never met with in wine produced from a soil of decomposed feldspar, and most probably is proportionate to the quantity of clay in the soil of the vineyard; but the sole cause of this, and the other vices, being found so generally in these wines, is the avarice or mismanagement of the Cape merchants, who vainly endeavour to correct them by mingling up all sorts together with a large addition of their wretched brandy. So great has been the depreciation of these wines from this cause, combined with over production, that the 6909 pipes of wine, which were the annual produce of 1806 for exportation, were actually worth more than the 10,000 pipes of 1821. The whole colony is computed to grow 22,400,100 bearing vines, equivalent to 21,333 pipes, and to be easily

^a *Hæmanthus coccineus et puniceus*, Thunberg, I. 255.

^b *Zeranthemum fulgidum et speciosissimum*, L.

^c *Erica tomentosa*, Masson, p. 299.

^d *Ekebergia capensis*, Thunberg, t. II. 53. 95.

^e "Chêne d'Albanie."

^f Manuscript Notice of M. Epidariste Collin, of the Isle of France.

^g *Cycas capensis*, Thunberg, Acta Societ. Upsal, II. p. 283.

VOL. II.—NOS. 67 & 68.

^h "Gayacà fleurs d'écarrlate," *Guaiacum Afrum*—Linn. *Schottia speciosa*—Jacquin.—P.

ⁱ Colebrooke, p. 2.

^k Ibid. 158.

^l Ibid. 510.

^m "Capiteux," heady.

ⁿ Manuscript Notes of M. E. Collin.

capable of producing double this quantity; but as the colony alone consumes above 6500^a pipes annually, and the population has increased above one half since 1806, namely, from 75,145, to 116,044, the present dismay of wine merchants and planters, from the low prices, must speedily be removed, by the rectifying influence of a demand increasing so much faster than the supply. That over production is the chief cause of the present depression, is sufficiently demonstrated by Constantia wine having fallen nearly in the same ratio, (from 200 to 150 rix-dollars, the nineteen gallon cask,) as the other and faulty wines of the Cape. Of these there are no less than 150 varieties known, though all proceeding from no more than eleven different species of the vine.

It is pleasant to observe, among the numerous gardens surrounding the city, the fruits of Europe growing by the side of the fruits of Asia; the chestnut, the apple, and other trees of the coldest countries, with the banana, the jambosade,^b and many other trees of the torrid zone. The learned M. Poivre mentions having seen^c at the Cape the palm and the camphor tree of Borneo; he even speaks of these trees having been propagated there; we are assured, however, that none exist there now, yet without being told whether their culture has been attempted. The fruits of Europe, such as cherries and apples, have somewhat degenerated; but figs, apricots, almonds, and oranges, are as delicious as in France. The fruits of India are more rare; the maraka^d and the pine-apple are wholly unknown. Vegetables grow well; all those of Europe are to be found, and even the artichoke, although Levaillant declares he had never seen it; wheat, barley, and oats, are successfully cultivated; rice does not grow there. Its cultivation was formerly tried in the environs of the Bay of St. Helena; but the attempt was fruitless; the yacca root is also unknown. Olive trees have been transported to the Cape; they did not immediately thrive, and the inhabitants have not made any further attempts. The cultivation of cotton has been tried; the south-east winds, however, cause the sand to penetratê the pods, and give it a yellow colour. Two species of wild indigo are found at the Cape; they appear never to have attempted its preparation; the cultivation of that of Bengal was tried, and abandoned. Flax yields two crops in the year, and hemp is abundant; but they have not yet attempted to make either linen or cordage. The Dutch East India Company had attempted latterly the culture of tea, and had tolerably succeeded; the English, it is said, have destroyed all the shrubs, to prevent their commerce with China being injured. Late authors again advise its cultivation.^d

Here, as in all other situations, the wild beasts have retired before man; lions are seen only near *Sunday* River; the deserts, however, even in the vicinity of the Cape, resound with the howling of wolves and the bellowing of hyænas. The jackal of the Cape^e and the tyger-cat^f are also common. A particular species of badger^g is observed.^h

^a Colebrooke, p. 115.

^b Eugenia Jambos.—P.

^c "Marigue."

^d Charpentier Cossigny, p. 64. Cl. Abel, p. 223. Colebrooke's State of the Cape, 352, 353.

^e *Canis mesomelas*.

^f *Felis capensis*.

^g This animal is not properly a badger. It belongs to a different genus, and even to a different order. It is now considered the same animal as the Syrian Ashkoko, supposed by Bruce to be the cony of the Scriptures.—P.

^h *Hyrax capensis*.

ⁱ *Hystrix cristata*.

The mangouste of the Cape^k and the jerboa,^l are scattered through all these countries. The hunters of the Cape pursue the numerous species of antelopes. The most beautiful of them all, the *pygarga*,^m is so common near Fish river, that herds of more than two thousand may sometimes be seen together. The blue antelopeⁿ is rare; the *gazelle*, properly so called,^o is one of the most common: the *pasan* is found in the north-west part of the colony; also the *gnoo*, the wood antelope,^p the *condoma*,^q and others. In the forests of the interior are found many species of baboons. Among the animals of this country may be observed the *Orycteropus*, or the *Myrmecophaga capensis* of Gmelin, named by the Dutch, ground hog; this animal feeds entirely on ants, and is larger than the ant-eaters of America, from which it differs sufficiently to constitute a different genus. Zebras, and quaggas larger and stronger than Zebras, move in separate troops; they are two distinct species, that never mix promiscuously. They are become very rare in the colony. The elephants have also forsaken the districts inhabited by Europeans, except the canton of Sitsikamma: the two-horned rhinoceros shows itself still less, and the gentle giraffe seeks the more secluded deserts.

The wild buffaloes are hunted by the Hottentots and the Caffres, whose herds are in a great measure composed of tame buffaloes, Barbary sheep, and goats; the cattle are small and bad. Sparrman first recognised a particular species in the ox or buffalo of the Cape, which he called *bos cafer*; it is distinguished by enormous horns, small head, a natural ferocity, and other characters; it is probably widely dispersed in the interior of Africa. In Abyssinia a breed of oxen with very large horns is known.^r The savage nature of the Caffree ox recalls to mind the *carnivorous bulls*, which all the ancients, since the time of Agatharchides, have placed in Ethiopia; and their horns, often singularly distorted, remind us of the oxen of the Garamantes, described by Herodotus and Alexander of Myndus, as compelled to walk backwards while feeding, on account of their horns turned towards the earth. The wild boar of this country is, like that of the whole interior of the south of Africa, the *Sus Æthiopicus*.

The ostrich is found in the deserts of the interior, and sometimes comes in troops to lay waste the fields of corn. M. Barrow states his having killed a very large condor. The flamingos display their scarlet plumage in every direction. We must further enumerate the loxiæ, which construct their nests with wonderful art, and the *Cuculus indicator*, which points out to man the concealed asylum of the laborious bee. We shall not detain our readers with M. Le Vaillant's account of birds, because it is considered merely as the work of imagination. The poultry, hogs, and other European animals which abound in this colony, have been imported by the Dutch. The horses also, which are at present very common, have likewise been transported by them from Persia. This country partakes, with the

^k The *Hystrix cristata* is the common porcupine. *Mangouste* is a name given by the French naturalists to the ichneumon, and certain species allied to it. Among these is the mangouste of the Cape, (*Viverra cafer*.) These species have been recently formed into a separate genus, (*Mungo*).—P.

^l *Dipus cafer*.

^m White-faced antelope or springer.

ⁿ *Antelope leucophæa*. Pallas.

^o *A. Dorcas*. It is the harte-beest of the Dutch.

^p The Bosch-bok, (*A. sylvatica*.)

^q *A. strepsiceros*.

^r Ludolf, Comm. lib. I. c. 10. lib. III. e. 11.

rest of Africa, the inconvenience of being exposed to the invasion of locusts. The south-wind drives away these destructive visitants.

The Hottentots, the original inhabitants of this country, appear to be a race distinct both from the negro and the Caffre. A deep brown, or yellow-brown colour, covers their whole body, but does not tinge their eyes, which are of a pure white;^a their head is small; the face very wide above, ends in a point; their cheek-bones are very prominent; their eyes sunk; the nose flat; the lips thick; the teeth very white; the hand and foot small in proportion to the rest of the body; they are straight, well-made, and tall: their hair black, and either curled or woolly; they have scarcely any beard. In many tribes, the hair does not cover the whole surface of the scalp, but rises in small tufts, at certain distances from each other, resembling the pencils or teeth of a hard shoe-brush, only it is curled and twisted into little round lumps. Suffered to grow, it hangs in small tassels, like fringe.^b The women actually have the deformity known by the name of the *apron*, already described by an early traveller, whose authority is very unjustly doubted.^c In some of their external characters they resemble the Mongolian race more than any other known African nation. The Hottentot language, unfortunately little studied, has furnished us with some very remarkable affinities to the small number of Mongolian and Kalmuck words which we have seen.^d This unexpected and surprising observation, might lead to very singular conjectures. Mr. Barrow, as well as M. de Grandpré, having observed in the Hottentot the Chinese or Mongolian eyes, immediately conceived they might be a colony of Chinese. It is necessary, however, before forming any conjecture, that the tribes of the central plateau of Southern Africa should be well known, as among them may be found a race, similar to that which we are now engaged in describing.

The Hottentots are divided into several tribes. The *Dammaras* occupy the most northern part. Their country begins beyond the *Copper mountains*, and reaches to the 21st degree of latitude, or as far as the country of the *Makosses*.^e The *Great Namaquas*, united under the patriarchal authority of the missionary Anderson, have ascended the banks of the Orange river, in a north-eastern direction. The *Little Namaquas* are found to the south of the same river, on the banks of which, shaded by mimosas, elephants, lions and giraffes, are found in considerable numbers.^f The *Kabobiquas* and *Geissiquas*, appear to be branches of the Namaquas. The *Koranas*, or *Kora-Hottentots*,^g occupy a central country, of great extent, and rich in pasturage; less filthy than the other tribes, they shew in their buildings and dress some tendency to civilization. A vast desert or *karroo*, protects their independence from Europeans.^h The Koranas have a

^a The iris is of a deep chestnut colour.—P.

^b This description corresponds to that previously given in this geography, of the hair of the Oceanic negroes.—P.

^c Kolben, p. 51. edit. of 1745. Comp. the Memoir of M. Péron.

^d Heaven..... *Iega*, in Hottentot... *Tingri*, in Mongol.

Man..... { *c Kai* } *Kumun*, in Kalmuck.
 { *c Kohn* }

Man, (male)... *Kouh*..... *Kouhn*, idem.

Child..... *c Kob*..... *Kaban*, son, youth.

Force, empire... *Kouquectoa*..... *Kouichin*, idem.

Father..... *Aboob*..... *Abagai*, (according to Witsen.)

Sun..... *Sorri*..... *Souri*, star, in the Akouscha language.

Head..... *Biqua*..... *Bek*, in three Caucasian idioms.

^e Lichtenstein, in Vater and Bertuch's *Ethnographic Archives*, v. I.

great predilection to follow the course of the Orange river, and their chief towns are to be found, says Mr. Campbell, along its banks. Towards the S. E., on the eastern limits of the colony, lived the now extinct *Gonaquas*, or *Channaquas*, a tribe distinguished by handsomer features, and a more enlarged understanding. Many other tribes, named with precision by the earlier observers,ⁱ have disappeared in proportion as the colony has invaded their districts. The descendants of these extinct tribes live among the Dutch in a sort of slavery, more or less mild, according to the caprice of their masters.

Covered by the skin of the sheep, the antelope, or the lion, besmeared with grease of a black or red colour, and armed with a short club, the savage Hottentot, singing and dancing, wanders about in the midst of the herds which form his riches. Their primitive manners are somewhat changed, from their proximity to Europeans. Thus we may believe, with Kolben, that formerly all the Hottentots deprived their children of a testicle,^k although, at present, this custom appears to exist only among the Koranas and Bushmen.^l If Kolben has exaggerated in accusing them of eating those disgusting insects with which their hair is filled, it nevertheless appears that they are fond of eating a similar insect, which is found among the hairs of horses and oxen.^m The most whimsical custom mentioned by the first historian of the Hottentots, is the ceremony by which a magician or juggler sanctifies the union of new married persons, by sprinkling them with a warm and impure water;ⁿ its truth is avowed by modern observers of the greatest credit;^o it is by the same operation that a youth of eighteen years of age is initiated into the society of his elders. The temperament of the Hottentots estranges them from polygamy; they have a horror of incest and adultery. The widow who wishes to marry again, is obliged to lose a joint of one of her fingers.^p They are said not to have any idea of a divinity; they nevertheless deliver themselves up to the operations of sorcery, and look upon a species of mantis^q as a sacred animal, or even as a god.

The *Boschmen*,^r or Bushmen, who by the Koranas are called by the indigenous name of *Saabs*, appear to be a branch very anciently separated from the Hottentots.

The Saabs are incontestibly found in the last extreme of degradation to which human nature can be brought; a wild, unsteady, sinister aspect; confused, sluggish, and insidious features, a visible embarrassment in their manner of acting when in the presence of other men, announce, at first sight, the depravity of their mind. Their excessive leanness renders the peculiar characters of the Hottentot race very conspicuous in their whole figure. The natural yellow colour of their skin is observable only under their eyes, where their tears, excited by the smoke of the fire, round which they like to squat, sometimes wash off the

p. 286. (Spite of every attention, the position of this tribe is laid down too narrow in our chart of Southern Africa.)

^f Patterson, 62. ^g Probably the Koraquas of Vaillant

^h Barrow, Voyage à la Cochinchine, t. I. p. 271. et suiv. trad. Française.

ⁱ Kolben, 60. ^k Idem, 147.

^l Trutter, chez Barrow, Voyage à la Cochinchine, I. 271—287. trad. Franç.

^m Mentzel, Description of the Cape, (in Germ.) II. 497.

ⁿ Kolben, p. 123.

^o Thunberg, II. 171; Sparrmann, 319, and the note of Forster.

^p Mentzel, Description of the Cape, t. II. p. 506.

^q Mantis fausta.

^r "Boschismens," Boschismens, Bosjesmans.

coating of grease and ashes which covers the whole body. Nevertheless, compared with the women, the men may in some measure be considered handsome: flabby breasts, hanging and elongated, a back hollow, incurvated, and lean like the rest of the body, contrasted with the hips, which are swelled, and so prominent that, as in the African sheep, all the fat of the body appears there concentrated, concur, with the ugliness of their face, and their general form, to render these women absolute objects of horror to Europeans.^a The amputation of the first joint of the little finger is considered either as a remedy^b or a useful charm against diseases and misfortunes. The sting of the scorpion, very dangerous in this country to every other person, has no effect on these savages. Arrayed generally with a bow, a quiver full of arrows, a cap and a belt, leather sandals, a sheep skin, a gourd, or the shell of an ostrich's egg to carry water, with two or three grass mats, which, when extended upon sticks, form their tents, and sometimes followed by spaniels, these unfortunate beings lead a most deplorable life, rambling alone, or in small parties, in the burning deserts that bound the colony on the north. They there chiefly live on roots, berries, ant-eggs, larvas, locusts, mice, toads, lizards, and the refuse of the chase left by the colonists. Their arrows are always poisoned. The strongest poison used by them is taken from the bags which contain it under the lower jaw of the yellow serpent. The substance thus obtained soon hardens; it is pounded with the red stone used to paint their bodies, and when the juice of the *Illiteris* bulb has been added, with the compound they prepare their arrows.^c It is not necessarily, though often, fatal.^d

Sometimes beggars, at other times thieves and brigands, always cowardly and cruel, without a fixed habitation, without government, without society, without any sort of common interest, and living only from day to day, every attempt to soften their savage habits has hitherto failed;^e the hatred of the neighbouring tribes also was very much excited against them long before the arrival of Europeans. These last, far from hunting them down, as some have supposed, welcome, on the contrary, such of the Saabs as roam in the neighbourhood of the colony, and make them presents of beasts, poultry, tobacco, brandy, coral, and buttons, to incline them to habits of peace. Very recently, the inhabitants of the northern districts united in distributing to one particular troop of Saabs thirty oxen and 1600 sheep, that they might have something for their subsistence; in a short time not a vestige of these remained, from the concourse of distant hordes that joined the party, and did not separate until the whole was consumed. It is a most civilized tribes of the Hottentots, and particularly the Caffres, who wage a deadly war against them,—even the sight of a Saab puts them in a rage.^f A Caffre, deputed by a small horde of his nation, being, in 1804, at the Cape, perceived in the government-house, among the other domestics, a Saab, about eleven years of age; suddenly he darted upon him with an intention to transfix him with his *hassagay*. The Saabs are the only people of Southern Africa who make use of poisoned arrows; it is with this weapon that they lie in wait for passengers in the *karroos*, by hiding them-

selves behind the ferruginous rocks, from which they are with difficulty distinguished. Often, after having received the sort of tribute which the colonists are forced to pay them, they come during the night to their habitations, plunder them of their cattle, and then fly with the greatest rapidity to their inaccessible mountains. If overtaken in their flight, they do not abandon their booty without either killing or maiming the plundered cattle; they sometimes even massacre every thing they find in the fold—horses, oxen, sheep, dogs, and shepherd, without deriving the least advantage from it.^g Like the *hyæna*, the sight of blood, and the smell of dead bodies, is said to afford them pleasurable sensations. Still the poor Bushman is capable of being reclaimed from the degraded condition we have attempted to delineate, after the testimony of travellers. Far in the interior, they are found to inhabit small villages, and to have made some progress in the arts of life. M. Smit, a boor at whose house Campbell halted, had fifty of them, of all conditions, employed on his farm. "They appeared to be all in good spirits, free from care, and depending entirely on Mynheer for their support. M. Smit had always found, if he committed any thing to their care, that they were faithful to their trust; but whatever was locked up, and not committed to their charge, they would steal if they could." Hence, though M. Smit did not require so many assistants, he judged it better to retain them in his service, than to be surrounded with such a number of thieves, and to be obliged to shoot them as others had done.^h When taken young, and well treated, they become excellent servants, and shew great activity, talents, and fidelity.ⁱ

Savage tribes are continually changing their idioms; every new chief wishes to introduce some new forms of speech: hence arises an instability and multiplicity of dialects, which perplexes critical study. This is a general phenomenon both in Africa and America; it is particularly the case in the instance of the different Hottentot idioms; they are continually varying. The words quoted by the earlier travellers no longer strike the ear of the modern observer; and each tribe, perhaps even each family, introduces terms which end in forming a jargon unintelligible to their neighbours.

According to M. Lichtenstein, the language of the Hottentots is in general remarkable for numerous rapid harsh shrill sounds, emitted from the bottom of the chest with strong aspirations, and modified in the mouth by a singular clacking of the tongue. The diphthongs *eou*, *ao*, and *ouou*^k predominate, and the phrase frequently ends with the final *ing*, pronounced in a musical tone of voice. In this clacking of the tongue there appear to be three progressive sounds, produced by the manner in which the back of the tongue is withdrawn from the upper part of the palate, or the point of the tongue either from the incisor teeth or the upper grinders. The peculiar construction of the organs in this race facilitates much the formation of these sounds, which in others would be very difficult. The bony part of their palate is in general narrower, shorter, and proportionally less arched in the back part than that of Europeans and Asiatics.

^a Lichtenstein, I. p. 182, &c. p. 401, &c.

^b Campbell's Second Journey, vol. I. p. 48.

^c *Ibid.* vol. I. p. 30.

^d Barrow, I. 248—353.

^e Barrow, *Voyage à la Cochinchine*, t. I. p. 284

^f Lichtenstein, p. 457.

^g *Ibid.* p. 599.

^h Campbell, Second Journey, I. 28—30.

ⁱ Barrow, I. 190.

^k French pronunciation.

The language of all the Hottentot tribes, including that of the Bushmen, is the same; it is a fact at present established, by the singularities which they have in common, and by the resemblance of many of the words. It must, however, be confessed, that the idiom of the Bushmen offers more striking differences than is observed between the different dialects of the Hottentots, and even sufficiently strong to prevent the two races of people from communicating with each other except by signs. Besides, the clacking sound of the Bushman idiom is stronger and more frequent, the nasal sounds clearer, and the ends of the sentences a great deal more drawing.

The *Colony of the Cape*, spread over an extent of 120,000 square miles, nearly equal to that of Great Britain, contained, by the census in 1821, a population of 114,903; but as it does not comprise sojourners, nor troops in garrison, crews of ships, nor unsettled inhabitants, or Hottentots, which are estimated at 5000 more, the whole population may be safely affirmed to exceed 120,000 in 1822.^a Since 1798, the progress of the census has been as follows:—

1798.	1806.	1810.	1814.	1819.	1821.	1821. Corrected.	1822. Corrected.
61,947	75,145	81,122	84,069	99,026	113,903	116,044	120,000

Or, the population of the Cape has been increased by one half in sixteen, and doubled in twenty-four years. Of these 47,978 are free; namely 24,977 males, and 23,001 females; 14,291 male, and 14,544 female Hottentots; 918 male, and 451 female prize slaves, formerly released from illegal slave traders, and now indentured as apprentices for fourteen years; lastly, 19,164 male, and 13,024 female slaves. According to estimates on the spot, the Hottentots double their number in twenty-five years, the slaves in thirty-three years; and it is observed that, owing to emigration, the population of the eastern division of the colony increases much faster than the west, though even this nearly doubles its population in twenty-four years. There is now, therefore, an individual to every square mile, or forty persons to every farm, the total amount of those in the colony being about 3000, though very unequal in point of extent. The white people are descendants of English, Germans, French, but chiefly of Dutch. The district of *Tulbagh* lies farthest towards the north, and is least known. The second, which includes the whole eastern part of the colony, derives its name from the pretty village of *Stellenbosch*. The most southern part, washed by the sea, is called *Hottentot Holland*; it is a country as fine as it is fertile in corn and wine. The most remote eastern district is called *Graaf Reynet*. It is here that the inhabitants, all either shepherds or hunters, live in a state quite patriarchal; the men are gigantic; the women have a peculiarly fresh complexion and majestic figure. *Algoa bay*^b has a small fortification. The district of *Zwellendam* ranges along the southern coast, and includes the cantons of *Sitsikamma* and *Houtiniqua*, with the bays of *Plettenberg* and *Mossel*.^c

Throughout the whole colony the farms are generally detached and isolated. The farmers, called in Dutch, *boers*, or peasants, carry the superfluous produce of their harvests to Cape Town, on heavy carriages, drawn by a great number of oxen. Their hospitality to travellers, the

necessary result of want of inns, is sometimes interested, and yielded often with a bad grace. Since the period of the residence of the English, their manners have become more polished. The colonists have been too much calumniated by certain travellers, who accuse them of inhumanity towards their slaves; in fact, the account we have just given of that part of the population doubling itself in thirty years, is a sufficient answer to this antiquated reproach. Though the Cape Dutch are proverbially fond of gain, the number of emancipated slaves is always considerable; in the course of the year 1820, it amounted to six male, and twenty-six female slaves; probably more than in all the slave colonies of the world besides. It must be owned, however, that before the suppression of the slave trade, the waste of life in this unfortunate class was much greater than now. It was rated by Barrow at 3 per cent. it is now less than 2 in males, in females scarcely $1\frac{1}{2}$; while births are 4 per cent.

The people of colour are estimated at a tenth part of the free population. The remaining black population are Malays, negro slaves, indentured negroes, Hottentot and Bushmen servants, and free Hottentots. The negroes were brought from Madagascar and Mozambique, and are chiefly labourers; the Malays are artizans, their females house servants; and are as remarkable at the Cape as in the east for a sinister and dangerous activity of character. The number of them who have by their economy purchased their freedom is very considerable. The last and most valuable class of slaves is the *Africander*—the African born slave, the produce of an European or Cape Dutchman, and of a slave girl. They are not much darker than Europeans, and are the confidential servants of their masters, highly esteemed.

Cape Town, the capital of the colony, reaches from the level of the sea to the foot of the Table and Lion mountains, along the shores of Table Bay; this bay is deep, but the sea is often rough, and the anchorage unsafe. Vessels enter it only from the month of September to the middle of April; during the rest of the year they put into False Bay, where they are sheltered from the north-west winds. This, which is also called *Simon's Bay*, becomes in its turn unsafe during the opposite season, when the winds blow from the south-east; so that the Cape, situated between two bays and two oceans, has not a real port. All the streets are built at right angles; and, in only one of them, a canal brings Holland to our recollection. The houses, built either with stone or brick, are adorned with statues; they are generally flat-roofed.^d The public buildings have little beauty: the Calvinistic church, in its interior, has many armorial bearings, epitaphs, and escutcheons, in relief and in painting, of former dignitaries of the Dutch church and state, but the last member of Dutch titled nobility is lately dead.^e The Lutheran chapel is also admired for its elegance; and, during the government of Lord Somerset, the English built an elegant commercial hall, of ample dimensions. Other public buildings are the castle, the great barracks, the granary, the custom-house, the club-room or society house, and the colonial office building. The latter contains the library lately erected by the government, or rather engrafted upon the Dessinian libra-

^a Colebrooke, 357.

^b Zwartkops Bay.

^c The districts of Zwellendam and Graaf Reynet have been recently subdivided; the eastern part of the former now forms the district of

George, and the southern part of the latter the district of Uitenhage.—P.

^d Epid. Collin, Manuscript Notice of the Cape.

^e Colebrooke, p. 152.

ry, heretofore under the management of the ministry of the Calvinist church. The founder was a German emigrant, a man of some learning and great benevolence: when alive, he was secretary to the Orphan institution, and by the manumission of all his slaves, embalmed his memory at his death. The library is now a noble collection, contained in two spacious halls, besides other apartments, and apparatus for chemical experiments. The only thing wanting is readers; reading is not an African passion; and a few years ago, some Frenchmen, who, with M. Collin, wished to see it, were obliged to give several days notice to the keeper of this neglected depot.

Cape Town, founded in 1652 by Van Riebeck, was peopled by bad characters exiled from Holland, by soldiers who had obtained their discharges, and by sailors who, having saved some property at Batavia, were enabled to disengage themselves from the service. At the time of the revocation of the edict of Nantz, many unfortunate Frenchmen, whom a barbarous mother rejected from her bosom, were hospitably received in Holland. Many of these Frenchmen established themselves at the Cape; they even peopled a small canton called by them the *Coin Français*,^a which is still inhabited by their descendants; they have only preserved French names much disfigured. The language is almost forgotten, and their customs are those of the Dutch. Cape Town possessed in 1821, a population of 9761 free inhabitants, 9661 Hottentots, apprentices, and slaves, in all 19,422; in 1798, the census only amounted to 5500, in other words, the population of the town increased nearly twice as fast as that of the colony. The number of houses is 1478, so there are more than thirteen to a family. Education is much neglected by the Dutch at the Cape; the young speak French and English tolerably well. There is indeed one colonial establishment for classical and school education; but the master is the colonial chaplain, with a salary of 1600 rix-dollars per annum besides his cure. In other respects little informed, they all excel in the arts of exercise; although good horsemen, and dextrous hunters, three fourths of their life are passed in smoking; they even go to sleep with the pipe in their mouths, and are continually drinking tea, coffee, and gin. "The women, until the age of twenty or twenty-five, continue very handsome: their blue eyes, hair of a clear chestnut colour, a rosy complexion, and extreme neatness, lead one to overlook their manners, which are far from elegant; after this age they generally lose the lightness of their figure, become very fat, and more worthy of their husbands, whose phlegm, mean appearance, and awkward gait, little corresponded before with their delicacy. Women are found at the Cape of great simplicity of exterior, who are at the same time very amiable and well informed." These are the words of M. Collin, a Frenchman. The English author of the "State of the Cape," 1822,^b says, "Very frequent marriages take place between English gentlemen and Cape ladies; but the pleasing and engaging manners of the Cape Dutch girls, and their vivacity, less forward than that of the French, but enough so to subdue English coldness, is quite at variance with the obtrusive presumption of the younger part of the other sex, and in them it is not to be denied, that abundant materials exist, which, when properly worked, form a totally different

man. Ignorant of the gradations of society, and with all the chances against him, from the natural good feelings of the mind, the individual generally turns out a respectable character as he advances into life." Mr. Barrow, no friend to the Dutch of the Cape, bears a similar testimony to the engaging sweetness of these ladies.

The established religion of the Cape is Calvinistic; the people devout and attentive to its duties.^c The young are catechised weekly, and pay the strictest attention to their teachers. Besides a Calvinistic church in each of the twelve districts, at 2000 rix-dollars, or 150*l.* per annum, with house and farm from the colonial government, two missionaries for Chinnie^d and Caffraria, at 75*l.* per annum, with free farm, there are two English chaplains, receiving 700*l.* and 350*l.* sterling, and a Lutheran clergyman, at 13*l.* a year, from the revenue of the colony. The English, who receive between them nearly as much salary as all the rest, are the only clergy complained of for neglect of duty. A Roman Catholic chapel is now building by subscription. There are sixteen missionaries of the London society, six Wesleyan, and three Moravian missionaries. The latter, by making industry and religion twin sisters, have not only made great progress themselves, but suggested improvements to those of other sects.^e The Malays, amounting to 3000, carry on their devotion in rooms, or halls, occasionally in the town quarries, under a learned *imam*, who chants the Koran with great taste. Mahometanism makes amazing progress among the lower orders at the Cape. Slave owners are impressed with an erroneous notion that a slave once baptized becomes free, and are, therefore, adverse to the Christian instruction or baptism of their slaves. Hence the slave is forced to become mussulman, because he cannot become a Christian. The above prejudice, however, is daily wearing away, and there are now a few free schools at the Cape, where slaves are taught to read and write on the plan of Dr. Bell; the total number of scholars being from three to four hundred. The presence of the English at the Cape has produced a great change in its manners. Definitively placed under the English government, it must, by degrees, lose the character of a Dutch colony.

This colony is susceptible of great improvement. Situated in the route from Europe to India, vessels that traverse these seas stop here for refreshment, and with a view of imparting fresh vigour to their crews, weakened by a long voyage. Its fertile soil producing every thing that is necessary for the wants of civilized man, may, strictly speaking, completely supply herself. Under an enlightened government, population will increase, commerce will find an easy market for its indigenous products, the culture of which will be improved by their interests being now better understood. It requires only an active superintendence to unite the Cape with the central parts of Africa, by well directed expeditions of discovery, and thus to draw from it unknown riches. During a period of war, the Cape is the centre of a maritime station, which commands the navigation of the East Indies. It is a central emporium to the trade of the eastern and western world; their relations to it, expressed in tonnage, are as 10,326 to 10,673 respectively. The Cape is rapidly growing into consequence, though its emigrants complain. Still there are circum-

^a Fransche Hoek, French Corner.

^b Page 171.

^c Colebrooke, p. 61. 63.

^d The *Chinniquas*, or *Gonnaquas*, lately extinct.

^e Lord Somerset's Instructions. Colebrooke, p. 223. 350.

stances which seem to set natural limits to its prosperity; the chief of which are the unequal distribution of water and rain, and the inadequacy of the soil to produce a quantity of wheat sufficient to supply the increase of inhabitants. The latter, however, is no weighty obstacle, since the supply of barley is abundant. Maize also may be well suited to the climate.

Next to agriculture and wines, which are still the staple commodity at the Cape, the whale and seal fishery must be ranked. Immense numbers of the finest fish swarm in the vicinity of the Cape, and considerable quantities are taken by whale boats, affording exports to the amount of 24,760 rix-dollars. Aloes, hides, barilla, ivory, ostrich feathers, fruits dried in the sun for the Indian market, and horses, are the other products for exportation. The breed of the latter has become extremely valuable since the arrival of the English, and the consequent encouragement given to horse-racing. About 200 horses, value 56,980 rix-dollars, were in 1821 exported to India. The whole amount of exportations exceeds two millions of rix-dollars. The internal commerce of the Cape is chiefly maintained by hawkers, by a few shops in the small towns, and most of all by the visits of the boors to Cape Town, often after a journey of 500 miles, over deserts which detain them several weeks, and by the fairs which are established at different points of the colony. In the months from September to February, when wine and corn is brought in, a line of wagons, each drawn by six, ten, or twelve oxen, will make its appearance from the country at day-break, extending some miles. After an abundant harvest, 180 have been counted in one morning—the average of the month of January, 1822, was sixty daily. The boor travels in a horse wagon, in which he overtakes one or two ox wagons, sent forward on the road. His wife and children accompany him, and after laying in a stock of necessaries sufficient for himself, family, and slaves, until next yearly or half yearly visit, he returns in a few days to the interior. The eastern parts of the colony are supplied by coasting vessels. The tonnage employed in this trade, in 1821, amounted to 1962 tons, in the coasting trade in general to 4507 tons, and the whole amount of tonnage in Table Bay, exclusive of men of war, 56,447 tons. For the defence of this great resort of shipping, from the S.E. monsoons, it is in contemplation to carry a mole on the S.E. of the bay to the extent of 2000 yards. Under commercial advantages of the Cape, ought to be enumerated the annual disbursements of the Indian invalids at the Cape, which are ascertained to amount to 700,000 rix-dollars per annum. The executive authority is vested in the governor of the colony, and from him, or from British acts of Parliament, or orders in council, emanate all the changes which take place in the state. There is no legislative assembly here, as in the West Indies. The law, however, is well administered, with open doors, and is founded on the "statutes of India," proclaimed here by the Dutch of 1715; where deficient, the civil and Dutch law are successively resorted to. The court consists of one Chief Justice, and eight ordinary Justices, and these decide causes by a majority, the Chief Justice having a casting voice. There are no juries here. An appeal can be made from these nine judges to the Court of Appeal, consisting of the governor and an assessor, who is a barrister, in criminal cases, but in civil cases the secretary of the court. Unfortunately the judges

are not for life, but removeable at pleasure. It is evident, that great courage in the lawyers, and integrity in the governor, can alone preserve so improper a collusion of interests in a state of purity. Though the people are abundantly litigious, crime is not frequent, the heterogeneous elements of Cape population being considered. In 1821, the number committed was ninety-one, of whom eight were females; and of these, six were sentenced to transportation for theft, and eight condemned to death. The total number of capital condemnations for 1820 and 1821, all of which were for murder, amounted to seventeen; namely, nine Hottentots, one Bushman, one prize negro, one European, and five slaves. Three of these were remitted; the European suffered. On the fourth of March, 1822, there was only one person confined for debt; eleven appears to be the maximum. Justice is administered to the seven country districts by the *Landdrost*, who is a kind of sheriff of the district, assisted by six *Heemraden*, as assessors. The *heemraden* are selected from the wealthiest and most respectable of the burghers, and seem to be the only popular part of the political machine. In every other respect the government of the colony is absolute, even to the censorship of the press and public journals. It is peculiar to the law of the Cape, to allow of matrimonial separation on the sole ground of mutual dislike; and to take on itself in a most beneficial manner the protection of orphans. An *Orphan Chamber* is established, which takes charge of the estates of all those who die intestate, or leave children minors; the chamber realises the estate; puts out the amount to interest on land, at the colonial rate of six per cent., payable every six months, making an allowance to heirs suitable to their condition and education till they come of age. Every method is taken for the discovery of heirs. This excellent institution is the result of a beautiful trait in the character of the Cape Dutch. "No surer proof of their kind disposition can be offered, than the frequent adoption of children of persons not related to them, whose parents may be dead or may have met with misfortune. They find protectors and friends, and by custom a godfather or godmother think it their bounden duty to provide for the children of their dead or unfortunate friends."^a A married couple saying in a shop they knew not what to do with their new-born infant, the master submissively asked to be allowed to take the child; and sending attendants with a sedan chair to receive it, was mortally offended when it returned empty, from the parents refusing to confirm the gift. There can therefore be no difficulty, except the present enormous exchange (of 195,) in the goods of those dying intestate at the Cape being transmitted to their European heirs.

The above singular depreciation of the paper money of the Cape, has arisen chiefly from an over issue of that article, without any guarantee for its value. The rix-dollar should be worth nearly four shillings, at present it scarcely equals one shilling and sixpence. Gold and silver have consequently long disappeared; and the only metallic currency of the Cape consists of English penny pieces. The distress and annoyance proceeding from this circumstance is incalculable, and can only be remedied, it is stated, by an issue of money representing actual value. At present, three millions of paper dollars circulate without this guarantee, although the whole produce does not exceed nine millions; while it is known that one-tenth^b of the amount of the an-

^a State of the Cape, p. 168.

^b Wealth of Nations, II. 32

nual produce is generally sufficient for the medium of its circulation in any country. The evil cannot but be aggravated in a country whose imports are three times as large as the exports, the former being six millions, the latter two millions of rix-dollars, in 1821.

This cause, so common in all new countries, and so little attended to by their governments; the occurrence of three successive seasons of drought; the arrival of shoals of emigrants, apparently removed from Britain without any proper measures being previously taken for their establishment, or without a single functionary in the colony having

been consulted,^a have thrown a gloom for the present over the otherwise flourishing colony of Southern Africa. Yet as vicissitude is the great law of nature in her operations, an early recurrence of droughts, these terrible precursors of famine, cannot reasonably be dreaded; and when we compare the other two evils with the mighty powers of compensation possessed by the mother country, the Cape may soon be expected to raise its head, the finest, and not the least flourishing or important settlement of the British empire.

^a State of the Cape, p. 179.

BOOK LXXI.

AFRICA.

Continuation of the Description of Africa.—South-East Coast, or Caffraria, Monomotapa, and Mozambique.

THE most recent observations have shown that the people scattered along the south-eastern coast of Africa, from Algoa Bay as far as Quiloo, and perhaps farther, resemble each other in certain physical characters, that distinguish them from the negro race. The skull of these people, like that of Europeans, presents a raised arch; the nose, far from being flat, approaches the hooked form; they have, however, the negro's thick lips, and the prominent cheek-bones of the Hottentot; their frizzled hair is less woolly than that of the negro; their beard stronger than the Hottentot's; a brown or iron-gray complexion also appears to separate them from the negro.^a The idioms of these people, although little known, have points of resemblance. The slaves of Mozambique understand many words of the Betjouana language. The inhabitants of the environs of Quiloo designate the divinity by the same name as the Betjouanas. In all these dialects, words may be discovered borrowed from the Arabic. The custom of circumcision is equally prevalent among all these nations, who appear to have received their civilization from Abyssinia and Arabia.

By what name is this race to be designated? Chance has rendered common to a considerable number of these people an arbitrary name. The Portuguese navigators, after doubling the Cape of Good Hope, found the inhabitants of the eastern coast of Africa more advanced in civilization as they approached the north, where the Arabs had introduced their own manners and religious belief. These Mahometans designated under the vague name of *Caffres* or *heretics*, all the natives of those countries into which the Mussulman religion had not been introduced. Under the name of *Cafarah*, or *Caffraria*, the Arabian geographers comprehended the whole interior of Africa. Caffraria might thus reach to Nigritia,^b border the Indian ocean from Zeila as far as Brava,^c and again extend to the shores of the sea to the south of Sofala.^d In proportion as the specific names of kingdoms and people became known to Europeans, the extent of Caffraria diminished on the maps, and had finally become extinct. Nevertheless, when the Dutch at the Cape, while extending by degrees the limits of their colony towards the east, found it necessary to make known their neighbours, then almost forgotten, they adopted the Arabic name, transmitted by the Portuguese writers, with a view of applying it particularly

to the tribe with whom they were in immediate contact, the true name of which is *Koussa*.

We conceive that the term *Caffre* may be provisionally employed for designating the predominant, and probably the indigenous race of eastern Africa, while, at the same time, it would be inconvenient to apply it to any tribe in particular.

The Caffre nations inhabit a region less known than almost any on the globe. We there see, behind a marshy, unhealthy, but fertile coast, chains of mountains arise that have been very imperfectly examined, which appear to be in a parallel direction with the coast, that is, from south-west to north-east. Do these interrupted chains, traversed by several rivers, proceed from a *plateau*, or from a central chain? Do the rivers *Zambese*, *Coavo*, and *Quilimancy*, derive their sources from amongst rocks, precipices, perhaps even from the midst of snows and ice, or are they formed in vast sandy plains, like those of the plateau of central Asia, or in verdant savannas, similar to those of America? There is nothing to assist us in resolving these questions. The burning winds that proceed from the interior seem to argue against the existence of this central chain, which, under the apocryphal name of *Lupata*, or *Spine of the world*, is traced at random on our charts. The Portuguese historians speak of it only as of a thick forest, interspersed with great rocks.^e The great lakes, of the existence of which little is distinctly known, may, with as much probability, have formed their basins in plains of sand as among rocks and glaciers. The Portuguese merchants in traversing Mocaranga, to the west of the state of Monomotapa, have only observed small hills covered with copses of thorny shrubs.^f The interior of Ajan, to judge by its productions and animals, ought to be a dry plateau. Finally, the mountains of Abyssinia do not present any fixed direction, and consequently do not indicate a great chain well marked.

In this absence of all positive information, let us abstain from those vain and presumptuous general opinions, by which certain geographers attempt to give proof of their genius; let us only simply describe the different countries in rotation.

The coast of *Natal*, extending from the Great Fish River, the boundary of the colony of the Cape,^g as far as the bay of Lourenço-Marquez or Lagoa, is watered by many rivers, sprinkled with wood, and intersected by magnificent savannas;^h there is no port safe, and deep enough to af-

^a Lichtenstein, Voyage, t. I. p. 406. Thunberg, I. 188. Barrow, &c.

^b Edrisi, Africa, edit. Hartmann, 41.

^c Idem. 98, 99.

^d Barros, Decadas, passim. Thomann, Voyage et Biographie, 55—57.

VOL. II.—NOS. 69 & 70.

^e Jean dos Santos, la Haute-Ethiophe, liv. II. ch. 2. (It is *Lupara* in the French translation. We have no access to the original.)

^f Notes of M. Corréa de Serra, and of M. Constancio.

^g The boundary is now advanced farther eastward.

^h Dampier's Voyage round the World, vol. II. 141—186. (Fr. trans.)

ford shelter to large ships. None of these rivers have a long course. In the interior are chains of mountains that appear to be of a calcareous nature as the natives hollow caverns in them,^a in which they live with their herds. The *holcus*, maize, and cattle, constitute the wealth of the inhabitants. They obtain a species of silk from a plant like the *Asclepias Syriaca*. Jacob Franck, the traveller, in the neighbourhood of the bay of Lagoa, saw lemon and cotton trees, sugar canes, and a seed called *pombe*, which is used to make an inebriating drink.^b The animals, probably more numerous than the men, roam in large troops; the most remarkable are elephants, antelopes, the rhinoceros, and hippopotamus.^c

It has recently been asserted that the unicorn, or *monoceros*, of the ancients, has been found here; which, if proved, would make this region very interesting. A respectable author, of the sixteenth century, has stated that the first Portuguese navigators saw, between the Cape of Good Hope and Cape Corrientes, an animal having the head and mane of a horse, with one moveable horn.^d It is precisely in this same region that two good modern observers have seen several drawings of a one-horned animal; all the rocks of Camdebo and Bambo are covered with them;^e the Dutch colonists affirm that they have seen these animals alive, and had killed some of them; they resembled the quagga, or wild horse; the horn adhered only to the skin.^f These positive testimonies, unfortunately of illiterate witnesses, are nevertheless corroborated by the account of Barthema, (or Varteman,) who, in the fifteenth century, saw at Mecca, two unicorns like antelopes; they had been brought from Ethiopia.^g The ancients have undoubtedly given a fabulous and vague account of this *monoceros*; they nevertheless unanimously compare it to a horse in the form of its body, with the head of a stag;^h which proves their having had in view an animal differing much from the rhinoceros. Besides this unicorn resembling a horse, the ancients distinctly name the *unicorn ass*, of a great size, with a horn striped with white, black, and brown, of great swiftness, and fond of a solitary life;ⁱ they describe it as *soliped*, like the unicorn horse, a circumstance that refutes the systematic objection of anatomists, drawn from the analogy of animals with divided hoofs which all have two horns. Besides this objection of our infallible philosophers is not altogether a solid one, as there are antelopes in which the two horns arise from a common base, raised two inches above the head;^j how then can nature be prevented extending this union from the base to the point? Besides, the accounts of those among the moderns who pretend to have seen the unicorn, remove this difficulty, by representing the horn as attached only to the skin, similar to that of the rhinoceros.

The existence then of the unicorn is not impossible, as has been said, but neither is it proved, nor even likely; this genus, like many others, may have become extinct;

whether, however, this animal exists or not, its representation upon the rocks of Southern Africa is not less a curious circumstance; it concurs in proving the ancient connexion of Caffraria with Asia: for the figure of the unicorn was, among the Persians and Hebrews, the symbol of kingly power; it is with this meaning delineated on the monuments of Persepolis. At Mashow, a town in the territory of the Tamahas, an animal of the rhinoceros kind was killed in 1821,^k having a horn projecting three feet from the forehead, arising about ten inches above the tip of the nose. A few inches of a small second horn, behind, did not effect its unicorn appearance. The head measured three feet from the mouth to the ear. It is at present deposited in the British Museum. The origin, figure, position, and magnitude, of the horn, correspond exactly with the above-mentioned representation of the unicorn in the Bushman caves of Bambo, as delineated by Barrow,^l and not the smallest doubt can remain that Mr. Campbell's animal is identical with the Bushman original, as far down as the neck. The country in which it was killed, lies directly north from that assigned to the unicorn by Barrow, namely, behind the Bamba mountains, where the animal found by Campbell is so far from being rare, "that the natives hardly took the smallest notice of the head, but treated it as a thing familiar to them." They make from one horn, four handles for their battle axes. Another creature of the same kind was seen and wounded at the same time. The unicorn then, or a quadruped with one long projecting horn, is found, but it would be endless to attempt to reconcile the jarring accounts of remote antiquity, and modern ignorance, with the present interesting discovery.

The tribe that first presents itself, in tracing the coast from south to north, is that of the *Koussas*.^m We have been made acquainted with it by two recent travellers, Lichtenstein and Alberti.ⁿ The country of the *Koussas* is bounded on the east by the Key River, on the west by the Great Fish River, on the south by the Sea, and on the north by a great chain of mountains, running from west to east, and dividing it from the territory of the Bushmen. It is traversed by the Keyskamma and Buffalo Rivers: the last alone furnishes good water. It is not now the Great Fish, but the Keyskamma River which is considered to form their western boundary.^o The territory between the Great Fish and the Keyskamma, including a parallelogram of 2000 square miles^p of the finest land in Caffraria, fertile, well watered, abounding in luxurious pastures, has lately been ceded by the friendly chief of the Caffres, Gaika, for the purpose of constituting it a *neutral ground* between the British colony and Caffraria. But the real object to which it has been applied, is the accommodation of the emigrants who sailed from England in 1820. It forms a new district under the name of Albany.^q

The soil is a black earth, rich, and extremely fertile.^r The banks of the rivers and the low hills are covered

^a Natural caverns are common in some limestone rocks; but any soft rock, such as sandstone, might be excavated by man.—P.

^b Ehrmann, Bibliothèque des Voyages, t. III. p. 112, &c. &c.

^c Garcias, Hist. Arom, I. cap. 14.

^d Sparmann, Voyage to the Cape. Barrow, Voyage to Cochinchina. Travels in South Africa, 2d edit. I. 269.

^e Cloete, proprietor at Constantia, near the Cape, in Voigt's Physical Journal, 1796, (in Germ.)

^f Barthema, lib. I. de Arabia, c. 18.

^g Onesicrit. ap. Strab. t. XV. p. 489. edit. Casaub. Plin. VIII. cap. 21, &c.

^h Ctesias, p. 16. ap. Herod, edit. Steph. Arist. Hist. Anim. II. cap. 1; part III cap. 2. Plin. XI. 37—46.

ⁱ Barrow, l. c.

^k See delineation in Campbell's Second Journey, I. p. 295. chap. XXXIX.

^l Campbell's Second Journey, I. 269.

^m Koussis.

ⁿ Alberti's Description of the Caffres, Amsterdam, 1811. Lichtenstein, Voyage dans l'Afrique Australe; Berlin, 1811.

^o Campbell's Map. State of the Cape, p. 377.

^p Barrow, I. passim.

^q Governor Donkin's proclamation, May 25, 1821. State of the Cape, p. 216 and 188.

^r Patterson, Voyage au Cap, p. 88.

with mimosas, aloes, euphorbias, and other high trees, or with thick bushes almost impenetrable. Among the vegetables is a species of reed well suited to quench thirst, although growing in brackish water. The downs,^a at the mouth of the Key, produce wild pisang in great abundance. It is not rare to find honey among the clefts of the mountains, in the hollows of trees, and in deserted ant holes. Between the Fish and the Keyskamma Rivers, there is excellent pasturage, both for large and small cattle. The grass that grows to the east of the Keyskamma contains too much acid, and hardens in ripening; many species of antelope feed on the western banks, also an incredible number of chamois, numerous herds of roe-bucks, elks, and other species of antelopes, wild horses, wild boars, ostriches, peacocks, pintados, geese, and other aquatic birds. These peaceable animals are pursued by lions, panthers, wolves, jackals, and many birds of prey. On the eastern bank, on the contrary, as far as the river Lagoa, only a few elks and horses are to be seen; but the elephant and hippopotamus appear to inhabit this part in preference.

The winter is not generally so rainy as at the Cape; Fahrenheit's thermometer seldom rises higher than 70 degrees, and seldom falls below 50; during the rest of the year it varies from 70 to 90 degrees; nevertheless, in the height of summer, storms are sometimes preceded by blasts of burning winds, which cause the thermometer to rise suddenly to 100 and more degrees.

The Koussas are generally tall, with a handsome head, regular features, an easy light figure, sinewy arms, all the limbs perfectly developed, noble carriage, vigorous attitude, and a firm resolute step. The colour of their skin is a blackish gray, or like iron recently forged, which is only unpleasant at first sight. But, with a view of heightening the effects of nature, they not only paint the face but the whole body, by rubbing themselves with a red pigment diluted with water, to which the women often add the juice of some odoriferous plant. The better to fix this application, they cover it with a layer of grease or marrow, as soon as it is dry, which attaches it more closely to the skin, and renders the latter more pliant. Red, in general, is the favourite colour of the Caffres. Their hair is black, short, woolly, hard to the touch, and united in scattered tufts. It is uncommon to see one of these Caffres with a full beard; the chin alone is generally covered with a few tufts of down; it is the same with the other parts of the body.

The women are much smaller, and rarely attain the height of a well-made European female; but with this difference, they are as well formed as the men. All the limbs of a young Caffre woman have the rounded and elegant form so much admired in antiques. Their breasts are well formed; contentment and cheerfulness are depicted in their countenances. The two sexes have a smooth and perfectly healthy skin. The same phenomenon discovered among the Hottentots, and which has given rise to so many absurd accounts, exists among the women of Caffraria; only the prolongation of the membrane is much smaller. Owing to their simple and natural mode of life, the Caffres are neither ugly nor deformed. Numerous herds of cows furnish an abundance of milk, which is their principal food. They always eat it in the state of curd, and keep it in rush baskets of admirable workmanship.

Their other aliments are meat, generally roasted, millet, maize, and water-melons, which they prepare in various ways. They have no salt, nor do they substitute any other seasoning. Water is their only drink. It is only now and then that they make an intoxicating drink with the meal of millet fermented. They cannot be persuaded to eat the flesh of tame hogs, hares, geese, or ducks, nor any kind of fish. When asked the cause of their dislike, they answer, that hogs are fed with every sort of filth; that after having eaten hare they become mad; that geese and ducks have a disagreeable voice, and resemble toads; and, in short, that all fish belong to the race of serpents. They are all passionately fond of tobacco. The *Hamboonus*, on the contrary, near Rio de Lagoa, never smoke; but, in return, they take a great deal of snuff.^b

The Koussas are very active. It is not uncommon, for example, that a party will continue to pursue an elephant several days-together, even at the hazard of their lives; yet they do not eat the flesh, and the teeth, which are the most precious of the spoil, are the property of the chief of the horde, and are therefore presented to him. They have a particular taste for long journeys, which they often undertake for the sole purpose of seeing their friends, or even merely for the sake of the journey, and of having something to do. After a journey of thirty or forty leagues, performed in the shortest possible time, they do not shew any appearance of extraordinary lassitude, and a small present is sufficient to induce them to dance after this fatigue.

Their clothes are made of the skins of sheep, which they prepare with much art; they hang down to the calf of the leg. Ivory rings, worn on the left arm, are their principal ornaments. All the women have their back, arms, and the middle of the breast, furrowed with parallel lines, at equal distances. These incisions, which, in their opinion, add beauty to their persons, are made by introducing a bodkin, like a bistoury, under the skin, which is torn as they turn up the point. They are very orderly in their families. Plurality of wives is permitted; those only, however, who are in easy circumstances, have two, and seldom more. The women, in general, are very fruitful; yet more children are found among those who do not share their husband's company with another, nor does polygamy favour population so much as is generally supposed. The dwelling of each family consists of a circular cabin very low; its construction is the work of the mother and daughters. Cattle are of the first importance to the Caffre; they may be said to constitute the chief object of his thoughts and affections. The Caffres are the true Arcadians of Theocritus. Sometimes the peculiar lowing of a cow is so delightful to the ear of a Caffre, that he cannot rest until he has purchased it, and to have it he pays often a great deal more than the real value. The best trained dog does not more rigidly obey his master, than these horned cattle the voice of their conductor. A sudden whistle will stop a large drove of oxen; another whistle will be sufficient to put them again in motion. Cultivation of the land also provides the Caffres with a part of their subsistence; the women perform the labour.

At the age of twelve years, the children of both sexes receive a sort of education from the chief of the herd. They are divided into companies that are educated according to the exigency of the service. The boys are appointed to

^a "Dunes," sand hills

^b Alberti, p. 12.

the care of the cattle ; at the same time the public officers exercise them in the use of the javelin and club. The girls are taught, under the inspection of the chief's wives, to make clothes, prepare food, and, in a word, to perform the work of the hut and garden.

Circumcision is in general use among the Caffres : it is performed when the young man approaches the age of puberty, nor is there any religious idea attached to it.^a

The children are very dutiful to their parents, and during their whole lives treat them with great respect. Women do not regularly take any part in the deliberations which have for their object the general interests of the horde ; but, in time of war, when the lives of ambassadors might be in danger, women are deputed to carry the proposals of peace to the enemy, it being perfectly certain that no ill will befall them.

A universal sentiment of kindness unites all Caffres, and every individual considers an injury done to another as if it were his own ; they interfere in the affair with the greatest earnestness. Although very self-interested, they exhibit the most perfect good faith in their commercial dealings. Hospitality is in their eyes a sacred duty, which they discharge with the most earnest alacrity ; every stranger is received and welcomed ; they even go so far as to provide him with a companion for the night.

Far from being a warlike nation, the Koussas have a decided preference for peaceful habits and a pastoral life ; they do not, however, hesitate to have recourse to arms, whenever they are called upon to defend or assert their rights, whether real or imaginary. Their arms consist of the hassagay, the shield, and the club, which they handle with great dexterity ; but they are very bad marksmen. A late traveller^b cites an example. After having distributed brandy to a body of Caffres, a board was erected at the distance of sixty paces, and a red cotton handkerchief offered as a reward to any one who should first hit the mark. They laboured a very long time before any of them got the prize. But the iron point of the hassagay pierced the board through and through, although an inch in thickness. This shews how dangerous a weapon it is in the hands of a resolute man. The Caffre holds in his left hand a bundle of hassagays, which he darts one after the other from his right, at the same time running upon his adversary ; he grasps the last in his hand, in order to strike in close combat. " Having finished this first exercise," continues M. Lichtenstein, " they gave us, of their own accord, a representation of their manner of fighting. They placed themselves in line, and imitated with violent and animated efforts, the action of throwing the javelin, and, at the same time, avoiding the enemies aims. For this purpose, they continually change their position, jumping from right to left with loud cries, throwing themselves for an instant on the ground, and rising suddenly with great vigour to take a new aim. The agility and swiftness of their movements, the variety and rapid succession of the finest attitudes, the graceful, noble figure of the naked combatants, rendered the sight both new and interesting." Previous to the commencement of hostilities, the aggressor sends to his adversary heralds of arms, carrying before them a lion's tail ; that emblem indicating their office, and the nature of the message of which they are the bearers. As soon as the army of the

one who has declared war comes near the enemy's camp halts, and heralds are again sent to announce its approach. If the latter has not yet assembled all his forces, he informs his adversary, who is obliged to wait until he has collected his people, and is ready to fight. The Bushmen, who are their neighbours towards the north-west, are the only people with whom they wage perpetual war ; they treat these brigands like wild beasts, follow them by the track to discover their haunts, and massacre without mercy those who fall into their hands, making no distinction of age or sex.

They are very fond of the chase, to which they set out in numerous parties ; the married and unmarried women often attend these expeditions, which last even two or three months. To subdue a lion, they begin by forming a circle round him, and by approaching him gradually towards the centre. The wounded animal immediately attacks one of the hunters, who avoids him by suddenly throwing himself on the ground covered by his shield, while the others run and pierce him with their hassagays. The conqueror re-enters his village in triumph. Hunting the elephant is most laborious. The Caffres are seldom able to inflict the wound sufficiently deep to render it mortal.

Their favourite diversion is a dance very regular, stiff, and ridiculous ;^c accompanied with a most disagreeable air. The only musical instrument seen among them consisted of a stick, upon which was extended a chord of catgut ; it is peculiar to the *Gonaqua* Hottentots, the ancient inhabitants of the southern promontory of Africa, who, since the enlargement of the European colony, have ceased to constitute a tribe, and are at present dispersed over Caffraria.^d

Each horde of Caffres has ordinarily its hereditary chief, called *inkoossie*. Whenever many hordes are assembled in the same district, they have at their head a supreme chief, esteemed the sovereign of the district. The chiefs exercise an absolute power ;^e but in cases of injustice or usurpation, the council remonstrates in the name of the people.

The right of the strongest does not exist among the Caffres ; no one is allowed to be his own judge, excepting where a man surprises his wife in the act of adultery. Unfortunately the example of European corruption already exerts its influence on the manners of this pastoral people. The arrogance of the colonists, frauds committed in commerce, and abuse of force, joined to the instigations of some bad characters of the colony and of revolted Hottentots, have brought on disastrous wars between the Koussas and the colonists, wars which have left behind them revengeful sentiments ; nothing, however, is more easy than treating with these people, by appealing to their natural equity. Mr. Barrow's former embassy to Gaika, who is still their chief, was not productive of any lasting effects. The colonists, with peace in their mouths, secretly excited the Caffre rebels to acts of aggression. A war broke out again in 1818, which terminated, as we have seen, (in 1821,) by the British depriving them of their best territory, now named Albany. A line of military is posted along the Keyskamma, and the Caffre sovereign has consented to receive missionaries into his territory, and to celebrate fairs on the boundaries, for the purpose of commercial inter-

^a Alberti, p. 71.

^b Lichtenstein, I. p. 354, &c.

^c Ibid. p. 356.

^d Alberti, p. 165. Barrow, 2d edit. I.

^e A chief has no power over the lives or property of his subjects ; but is amenable for every offence to the established laws of his horde or nation.—*Ed. Encyc.—P.*

course, which had been interrupted by the war. Driven from their most fertile lands into a desert too barren for support, this interesting and once happy people seem destined to the extinction so lately suffered by their neighbours, the Gonaquas, or the still more degraded fate of the wretched Bushmen. Want infallibly produces despair; the frontier colonists, instead of being secured by this precipitate advance of their boundary, or by unheeded proclamations for the preservation of peace and amity with the Caffres, may possibly yet have cause to regret that cupidity which has added the impulse of hunger to the thirst of vengeance.

The arithmetic of the Koussas is confined to addition, which is performed by counting on the fingers; they are without signs for decimal notation. Their longest measure of time is the lunar month; an addition soon results that surpasses the bounds of their arithmetic; they are unable to determine any very considerable period of time, of the past as well as the future; they succeed better in marking with precision the hour of the day; this is effected by extending the arm towards the point where the sun at the time is seen on the horizon. To this ignorance of calculation, and total want of chronology thence resulting, must be attributed their deficient information respecting the origin and the history of their nation; every thing known by them on the subject may be reduced to this: "In the country where the sun rises was a cave whence the first Caffres issued, and in general all the nations as well as animals of the globe; at the same time both sun and moon appeared to give light to the earth, as well as trees, grass, and other vegetables, for the nourishment of men and cattle."

After passing the Key River, or its tributary streams the Zomo and Bassah, you enter the country of the Tambookas:^a the true name of which, according to a recent traveller, is *Ma-Thimba*. It is from these people that the Koussas derive their songs, composed less of words than of syllables unintelligible to themselves.^b They possess iron and copper mixed with silver; at least their rings are composed of a similar metal.^c On the other side of the Nabagana are the *Hamboonas*: their identity with the *Mambookas*,^d supported by Lichtenstein, is not altogether incontestible. The first name is that given by the Gonaquas to a tribe bordering on the Tambookas; the second is the name that the traveller Van-Reenen,^e heard given in the country, a name also known to Sparrmann. According to Lichtenstein, the Koussas call them *Immbo*. They cannot be distinguished among these obscure and uncertain denominations. Among the tribes remote from the coast are the *Abbatoana* and *Maduana*.

The coast of Natal is terminated by the bay of Lourenço-Marquez, to which a maritime lake, situated on its northern border, has caused to be given the Portuguese name of bay *da Lagoa*, that is, the Bay of the Lagoon. It has sometimes been confounded with the bay of Algoa, situated eight degrees farther south. The fertile shores of this beautiful and large bay have often tempted the ambition of Europeans; the establishment which could there be formed might export great quantities of ivory. The rivers Mafumo and Maquinis, or Saint-Esprit, which there empty themselves, are still traced according to an-

cient charts, and have not been explored by any known traveller.

In ascending the one or the other of these rivers, will be found the numerous tribes of the nation of the *Betjouanas*,^f that have been visited by travellers from the Cape. This nation is called *Briquas* by the Hottentots, from whom they are separated by the inhospitable desert of the Bushmen. Mr. Barrow, in writing this name *Bushwana*, has scarcely committed a serious error, because the difficulty of expressing the precise sounds of African idioms ought to make us even doubt the orthography given with the greatest appearance of accuracy. We are told that it also takes the name of *Moulitjouanas* and *Sijouanas*. In order to decide which of these names is the true patronymic of the nation, its etymology ought to be known.

The country of this people, situated between the twentieth and twenty-fifth degrees of latitude, has a very agreeable and varied aspect; forests of mimosas are intermixed with fine pasturage. The *Betjouanas* are divided into several tribes; on entering the country from the south, that of the *Matjapings*, on the River *Kurumana*, is first met with; it is one of the least powerful. One degree farther north, on the River *Setabi*, are found the *Murulongs*; their number amounts to ten thousand. Some years have now elapsed since these two tribes, then united at the source *Takoon*, constituted the renowned city of *Latakoo*, of which Barrow has left so brilliant a picture. Though shifted from its former site, it is still as large as the *new* city of the same name, fifty-six miles to the southward, at the source of the *Krooman River*.^g The *Matsarouquis*, to the west, on the lower confines of the *Kurumana*, border upon the *Dammara Hottentots*. To the north of the *Murulongs*, are the *Wanketzees*. The *Tammakas*, otherwise called *red Briquas*, a very numerous tribe, occupy several villages to the north-east of the *Matjapings*, to the south-east of the *Murulongs*, and to the north of the *Kharamankeys*, a tribe of *Corana Hottentots*, with whom they live in the most perfect harmony, frequently uniting in marriage, with a view of rendering their friendship more intimate. The *Khojas*, a tribe to the north-east of the preceding, are also very numerous, but little known. Three days journey to the north-east of the *Wanketzees*, and due north of the *Khojas*, are stationed the *Mukhuruzis*, under a chief renowned for his bravery. Lastly, to the north-east of these inhabit the *Maquinis*, the richest and most powerful of the *Betjouana* tribes. A *Matjaping* who had visited them, assured M. Lichtenstein, that they were numberless, like the sand. It is they who furnish to the others, knives, needles, ear-rings, and bracelets of iron and copper, which travellers have been so much astonished to find among these savages. They extract the metal from a chain of mountains lying between them and the *Mukhuruzis*. Campbell, in 1821, penetrated as far as *Kurechane*, the capital of the *Marootzees*, and was favourably received. They have made considerable progress in the arts, and understand the art of working iron and copper, with the first of which their country abounds. Their country lies on the twenty-fourth parallel of south latitude. Though not in immediate contact with the last Portuguese posts of *Monomotapa*, they occasionally travel down to these settlements; and it was by their accounts that the other *Betjou-*

^a "Tambouquis," Tambookies.

^b Lichtenstein, p. 417.

^c Sparrman, p. 452.

^d "Mambouquis," Mambookies.

^e Van-Reenen, quoted by Bruns, *Afrika*, 111. 70.

^f Booshoonans, Booshunnas, Betjuanas.

^g Campbell's Second Journey, I. Map, and *passim*.

anas became at all acquainted with the existence of white men, of which the greatest part of them doubted until they had seen the Dutch among them. The Mahalaseela, to the north-east, who use elephants as beasts of burden, sell beads, and live near the great water; the Matteeveylai to the east, who live near the great water, and have long hair; the Mollaquams, who live to the north-east, and bring beads to the Bouquains; the Malchaquams, eight days' journey to the east; lastly, the Bouquains and Wanketzees, are the immediate neighbours of the Marootzees. Beads with them are the great medium of circulation. The art of inoculation for small-pox is known and practised at Kurechane.^a The population is estimated at 16,000, that of each of the Latakoos, 4000.

These different tribes, under the government of particular chiefs, who are often engaged in war, are nevertheless united by language, manners, and customs. Being great travellers, the Betjouanas all know each other well; the sons of good families, and principally of the chiefs who aspire to the succession, are constrained to make long journeys, for the sake of forming friendly connexions and alliances useful to their tribe, in case of necessity.

Less tall than the Caffres, and as well proportioned, their form is even more elegant; the brown tint of their skin is between the shining black of the negro and the brownish yellow of the Hottentot; the form of their face exactly resembles that of the Caffres (Koussas); excepting that more frequently the nose is arched, and the lips like those of the European; the expression of their eyes, and a certain something about the mouth, often gives them an appearance of men possessing great sensibility without refinement; the free and harmonious play of their countenance, of their gestures, and of all their muscles, reflect, as from a mirror, the movements of their minds; their language is sonorous, rich in vowels and aspirates, and well accented; an elocution approaching to chanting, joined to great sweetness, gives it all the charm of the Italian.^b

Desirous of information, they assail strangers with questions; and the excess of their curiosity is often troublesome. To gratify their curiosity, they handle every thing new to them, and they beg it, if they are at all pleased with it; yet a refusal does not offend, and a look only, or gesture, is sufficient to put a stop to their importunities. The goodness of their memory is shown by the facility with which they retain all the Dutch names, and even entire phrases, which they pronounce better than the Hottentots born in the colony. At a much greater distance from the state of nature than the Caffres, they are masters of the art of dissimulation, and know how to manage their personal interests with address. Always active and in motion, even without any settled occupation, they sleep little during the day; during the full moon, they often pass even the night in dancing and singing. Of moderate desires, they inure themselves to fatigue by running whole days without requiring any other food than that which is presented to them in the uncultivated and naked plains of their parched countries. At home they live chiefly on the curds of milk. Meats furnished by the chase are most agreeable to them; they seldom kill cattle. They eat the flesh of the hyæna, the wolf, fox, cat, rhinoceros, and swan; they even be-

come, it is said, in certain circumstances, anthropophagi; they have, however, an unconquerable aversion to fish, nor will the greatest hunger force them to eat it. The ashes in which they roast their meat are substituted for salt, which is entirely wanting in their country. They drink water only in the greatest extremity; they do not even use it for washing themselves. They do not understand, like the Koussas, the process by which a fermented liquor is extracted from seeds; but they immediately and gladly accept wine and brandy given them by Europeans. The use of certain herbs, both in the form of smoke and of powder, was familiar to them long before the arrival of the Europeans; they have also given to tobacco the particular name of *montiouko*, while the Hottentot tribes, who also smoke wild herbs, especially the dakra (*Phlomis leonurus*) have adopted, in their language, the shortened word *twak*.^c The Marootzes cultivate tobacco, both for trade and home consumption.

Their clothes are neat, and made of the skins of different animals, such as civets, jackals, wild cats, and antelopes. The men conceal their nakedness under a leathern bandage, like the Jagas, and the women wear several aprons, one over the other; they also cover with care the breast, leaving the belly uncovered.

Among their ornaments may be observed rings made of yellow copper, six or eight of which hang from each ear; elastic bracelets also of the same metal, and large ivory rings surrounding the lower part of the arm. Not having saws, they soften the ivory in milk, and then cut it with considerable difficulty with a knife. They appear to possess the art of making brass-wire; for the fine copper wire which they very ingeniously wind round a tuft from the tail of a giraffe to make their bracelets, is quite a peculiar metal, and this kind of merchandize does not form an object of exchange with European vessels employed in African commerce. Yet M. Lichtenstein counted seventy-two of these bracelets on the arms of one woman. They are manufactured at Kurechane.

The construction of their houses and stables is very superior to that of the other inhabitants of Southern Africa; but the women have alone the merit of it. The form of their houses is generally circular; the arrangement of the parts appears to vary according to the situation and season: the interior is light, clean, and well ventilated. Pottery is also another kind of industry reserved for the women; they use, in its formation, the same ferruginous clay, mixed with mica, that serves them for anointing their bodies. Their pots are exactly hemispherical, and without feet; and, notwithstanding their want of thickness, are very strong. They also make pitchers very narrow at the mouth, in which milk may be kept fresh for a considerable time.^d The Betjouanas also shew much cleverness in smith work. Their instruments are hammers and pincers of the same form as ours, only a little more clumsy; a large stone serves them as an anvil. They understand tempering iron, and the making of steel; and, although badly furnished with tools, undertook to repair the carriages and iron tools of the Dutch who came to see them. They highly valued the saws, files, chisels, and nails, shewn to them, and immediately understood their use. The bark of several trees, and the filaments of several species of

^a Campbell, I. 257.

^b Lichtenstein, Archives Ethnographiques, cahier I.

^c Lichtenstein, Relation sur les Betjouanas, Ann. des Voyages, tom. V.

^d Lichtenstein, Annales des Voyages, t. V. p. 358. Barrow's Narrative of a Journey amongst the Booshooanas, at the end of his Voyage to Cochinchina.

rush, furnish them with materials for making strong pack-thread. The art with which they cut figures on the sheaths of their knives, which they hang round their necks, on their hassagays, spoons, and other wooden utensils, proves that they do not want genius for sculpture. In some houses at Kurechancee, there are figures, pillars, &c. carved or moulded in hard clay, and painted in different colours, that would not disgrace European workmen. They know how to paint and to glaze their pottery. Ivory, rushes, leather, wood, clay, stone, are all ingeniously wrought. Their iron is remarkably fine.

The Betjouanas have an idea of a soul, the seat of which they place in the heart; they say of an honest man, that his heart is white. In the same manner, they associate the ideas of wicked and black. Honesty, loyalty, and courage, are with them principal virtues; but the rights of property are not held by them very sacred. They believe in an invisible master of nature, supreme distributor of good and evil, whom they call *murimo*, analogous to *murinna*, king or lord: the sentiment held towards him appears to be nearer allied to fear than love. The high priest who presides over their religious ceremonies, is the second personage after the king. These ceremonies are chiefly the circumcision of boys, and the consecration of cattle. The priests are also employed in the observation of the stars, and the arrangement of the calendar: they divide the year into thirteen lunar months, and distinguish the planets from the other stars. Venus, Sirius, Acharnar, and some others, have particular names, known to few. To religious ideas may be undoubtedly referred the folly of the Betjouanas in prognosticating future events by means of dice, of a pyramidal form, made with the hoofs of antelopes. Their conversion to Christianity was long attempted in vain: they appeared to laugh at our doctrines, and to jeer at our mode of worship. When spoken to concerning the God of peace, they answered, he may be as angry as he pleases, we cannot give up going to war. Of five missionaries, there was only one to whom they shewed any civility or attachment, and that was on account of his having made known to them the use of the plough. Of late, however, they have all expressed the greatest willingness to be converted. There is a mission at New Latakoo, in the very heart of their territory; and every one of the princes visited by Mr. Campbell expressed a wish to have missionaries settled among their people. There is another at Griqua Town, and both are most carefully attended by the natives. Indeed, preoccupied by no other creed, and impressed with ideas of the superiority of Europeans, whom they call *gods*, the open curious mind of the Betjuana cannot be supposed to be obstinate against conviction. The missionaries complain chiefly of their feeble reasoning powers; but, after all, these perhaps differ little from other nations in the same stage of civilization. Wherever the missionaries have settled, the people have become better clothed, more industrious, and have left off the predatory *commando*, which indeed is nothing but an expedition undertaken to deprive the inhabitants of some neighbouring village of their lives and cattle; but to which all the false glory of war is attached in the ideas of these simple men. The chiefs of the Griquas, Tammakas, and many other tribes, now attend with solemn regularity on the preaching of the Gospel: even the wild, persecuted, but not ungrateful Bushman, listens with delight and thankfulness to the mes-

sengers of peace. Communities of Bushmen, to the extent of many hundreds, have been reclaimed from the precarious life of the desert to the blessings of civilized life, and are highly spoken of by their benefactors, the missionaries, for devout and regular conduct. In this direction, where there is no political jealousy, Christianity now makes a rapid and steady progress.

Their arms differ little from those of the Caffres, and consist of the hassagay and the club. M. Lichtenstein does not mention the shield; but many of the tribes use it.^a For some years past, they have also employed against the Bushmen the same poisoned arrows that they seize from these implacable brigands; for they are unacquainted with the mode of making them. The population, instead of being diminished by the frequent wars in which they are engaged, is increased among the victorious tribes, in consequence of the number of women and young children whom they take prisoners. Without being at present acquainted with the slave trade, the Betjouanas already appear to conceive the profit they might make by the sale of their prisoners. They offered to exchange with M. Lichtenstein's companions, children of ten years old, for sheep.

The disproportion between the number of men and women, which is general throughout the countries bordering on the tropic, has given rise to, and perpetuated polygamy, at the same time that it retains the women in a certain state of servility. As soon as a young man can think of establishing himself, he lays out a part of his property in the purchase of a wife, who generally costs from ten to twelve oxen. The first business of the new married woman is to build a house, for which she must herself fell the necessary quantity of wood: in this work she is sometimes assisted by her mother and sisters. The building a stable for cattle, with its inclosure, the cultivation of the fields, and all the household work, equally form a part of the servile duties of a Betjouana woman.

As soon as the cattle are increased in number, the Betjouana thinks of increasing his family by purchasing a second wife, who is equally obliged to build a house with stable and garden. Thus the riches of a man are estimated by the number of his wives. The women are very fruitful, and a Betjouana, surrounded by a numerous family, resembles much one of the patriarchs delineated in the Scriptures.^b

The Barroloos live at the distance of ten days journey north of the Betjouanas;^c they live in large cities; understand casting iron and copper, and carve with taste in wood and ivory; their soil is fertile, shaded by trees, and watered by rivers. This is the account given by the Betjouanas to European travellers; and it is confirmed by the late researches of Mr. Campbell. The Wanketzees, Marootzees, Mashows, Yattabas, and Bouquains, though they speak a dialect of the Betjuana language, are not called Betjuanas, but Boroolongs. The above particulars then apply perfectly, as we have seen, to those nations of the Betjuan territory comprehended under the term Boroolongs. The country is well supplied with wood and water, and very fertile; and they both possess considerable acquaintance with the arts, and trade with nations to the east, having direct communication with the Portuguese.

From the travels of Campbell it appears that the farthest

^a Campbell, vol. I.

^b Lichtenstein, l. c.

^c Barrow, compared with Lichtenstein.

country to the north-west, known to the Betjouanas or Boroolongs, is named *Mampoor*. The *Kallyharry* are a people living a month's journey to the north-west of Latakoo, from whom the latter procure the skins of the wild cat. North of the Orange River lies the country of the Great Namaquas, which, to about lat. 26° south, and long. 19° west, is watered by the tributary streams of the Fish and Orange Rivers, and therefore tolerably fertile; but to the east and north of this lies the great southern Zahara, or desert, extending probably to the equator, and inhabited only by wandering Bushmen. This vast region of sand, studded here and there by trees, is bounded on the eastern side by the Betjuanas, Marootzees, and by other tribes, which they denominate as follows:—north of Kurchancee, the Moquana, Bamangwato; north-east, the Macallaka; east, Bapalange, Massoona; east by south, Bahatja; south-east, Bassetza, Booropolongs, Maribana, Babooklola, Bamoohopa, Bapoohene; south south-east, Bapo, Bammataw, Balicana, Bahooba, Bapeeree, Buklola, Moolehe, Moochoobeloo, Moomanyanna, Mohawpee, Bommaleetee, Peeree. Besides these tribes, or nations, to the south south-east, Barrow and Campbell ascertained, that great hordes of both native and Betjuana Bushmen inhabit the country south-east of Latakoo, immediately behind the Tambookas, and in a line drawn from Port Natal to Latakoo. These Bushmen possess herds of cattle. The Wanketzees are situated to the west of the Marootzees, from whom they are divided by a chain of mountains passing from north-east to south-west; they are commanded by a treacherous prince called Makabba, and at present bear the worst character of all the southern tribes except the Bushmen. Travelling from sunrise to sunset, *Mampoor*, situated on the sea-side, is two moons journey from Latakoo, and three moons when the travellers are incumbered with cattle, the plunder of these being the objects of this distant march. The desert beyond Kallyharry bears mimosa trees, and others, unknown to the Latakoo, somewhat resembling the willow. The surface of this great desert, which reaches from the Namaquas to Long mountain and the Wanketzees, extending 1000 miles to the north, and 500 to the west of Latakoo, is not perfectly level, and though generally covered with sand, has tufts of withered grass in the hollows. The watermelon is pretty copious; water is extremely scarce. There is a nation at its farthest extremity called Quabee, (or Grass Knee.)^b The extent of this desert, as obtained from natives, brings it to the 10th degree of southern latitude; in short, into the country of the Giagas or Jagas of Congo, who, it is evident, are nothing but the wandering Bushmen of the desert, and the desolating commandos of the Betjuanas and Boroolongs. By such inquiries the benevolent labours of the missionaries expand the boundaries of science; but we have to resume the subject of central Africa in the course of the next Book.

In resuming the description of the maritime countries, we shall pass over in haste *Inhambane*, extending from Lagoa bay, as far as Cape Corrientes, where a fort built by the Portuguese points out the southern limit of the possessions claimed by that nation. Cape Delgado is the north-

ern frontier. This whole extent of coast is called the *Government of Sena*, or *Mozambique*. The coast of *Inhambane* is covered with pasturage and destitute of wood.^c Each village has its independent chief.^d The country of *Sabia* contains nothing remarkable. Frequent mention is made of the kingdom of *Sofala* or *Sephala*, but it appears to be only the maritime part of the kingdom of *Botonga*; for *Sofala* denotes in the Hebrew and Arabic languages, *Low Country*.^e Four hundred executioners constantly precede the king of this country, who assumes the titles of *Grand-sorcerer*, and *Grand-robber*. These words perhaps excite in the mind of an African, ideas equally just and liberal, as the phrases applied to the paternal wisdom and august magnificence of our sovereigns excites in the mind of an European courtier. Four ministers traverse the kingdom yearly, one represents the person of the monarch, a second his eyes, a third his mouth, and a fourth his ears.

The golden treasures of this country have become quite a common place among the Arabian geographers; this precious metal, however, undoubtedly came from the interior. The soil is fertile, the climate tolerable. The approaches to the coast are dreaded on account of the numberless reefs and banks of sand. It is asserted that among the inhabitants there is a race of gigantic stature, who deliver up their prisoners of war to a nation in the interior, to be devoured.^f Those residing on the coast have embraced the Mahometan religion, and in some measure the Arabic language. They are ignorant of the art of dyeing their cotton stuffs.

The state of *Monomotapa*, situated behind *Sofala*, is like the latter watered by the *Zambese*, one of the great rivers of Africa, that empties itself into the sea by four mouths or branches; namely, in proceeding from the north to the south, the *Quilitane*, the *Cuama*, which appears to be the principal, the *Luabo*, and the *Luaboil*. The natives say that this river originates from a great lake, and receives its name from a village not far from its source. It is very rapid, and in some places a league in breadth. They ascend it as far as the kingdom of *Sicambe*, above *Tete*, where there is a cataract of an astonishing height, and constant falls for the space of twenty leagues, as far as the kingdom of *Chicova*, where are found mines of silver. The *Zambese* inundates the country in the same manner as the Nile; but in the month of April. In sailing upon this river it is very hazardous to plunge the arm or foot into the water, on account of the numerous and daring crocodiles.^g *Monomotapa* abounds in rice, maize, fruits and cattle; it is cultivated along the rivers, but the rest of the land, although uncultivated, appears fertile, since vast forests are found there inhabited by elephants, rhinoceroses, wild oxen called *meroos*, tigers strong enough to carry off a calf, zebras, antelopes, and monkeys.^h The hippopotamus and tortoise attain an enormous size. The Portuguese have bred a few horned cattle; but horses are altogether wanting. The mineral kingdom appears interesting. Gold dust every where abounds; the Portuguese collect it in the environs of *Tete*, the natives in the province of *Manica*; in addition to these are enumerated the gold mines of *Boro* and *Quaticuy*, where this precious

^a Campbell, I. 271.

^b Ibid. II. p. 120.

^c Ramusio, Collection des Voyages, t. I. p. 392.

^d Bucquoy, Voyage, trad. allem. p. 22.

^e Hartmann, Edrisi Africa, p. 109. Reland, Palæstina, p. 372.

^f Bucquoy, p. 4 and 5.

^g Thomann, Voyage, p. 133.

^h Idem, p. 118, 119, 122.

metal lies imbedded in a rock. The kingdom of *Butua* is considered the richest in gold. Masses of native silver have been met with. The natives diligently work some iron mines.

The name of *Monomotapa* signifies, according to some authors, the king of *Motapa*: it is written by others *Beno-Motapa*, which, according to an ingenious observation, appears to signify in Arabic "people of mercenary soldiers," and is consequently only an appellative given to these nations by the Arabs, who have conquered the sea-coasts.^a However it may be, the sovereign, to whom the title of emperor is given by the Portuguese, formerly extended his dominion over a great number of vassal kings: he is still, say they, one of the most powerful princes of Africa. The great edifices of *Butua*, covered with inscriptions in an unknown language, appear to be silent evidences of ancient civilization extinguished during the presence of civil wars, or which may have disappeared with the nation, great both in commerce and arms, of which these monuments appear to be erections.

The provinces and cities of the empire of *Monomotapa* are not better known than they were in the sixteenth century. *Zimbae* is the collective name of every great city, like *fou* in China. It is the name of the emperor's residence, which is sixty leagues from the sea; it is a very populous city, and is situated on the banks of the great river. *Tete* and *Sena* are two Portuguese forts; the first, also called *San-Yago*, is one hundred and twenty leagues in the interior, and fifty leagues east of the great cataract. The Portuguese still possess on this river the posts of *Chicova* and *Massapa*, near the gold mines of mount *Fura*. The post of *Zumbo*, where the Banians manufacture gold plate, has been seized from the Portuguese by the natives.^b The people of this country go nearly naked, like those of the western coast; they are superstitious, and believe in magic and enchantments. According to reports which seem doubtful, the king, on days of ceremony, carries suspended at his side a small spade as an emblem of agriculture. The children of the great men are retained at court as hostages; and the king sends every year an officer into the provinces. It is at that time the custom for the people to testify their loyalty by putting out their fires, and relighting them by fire taken from the officer's torch. It is said that the emperor's guard consists of a squadron of women lightly armed. After all, is it ascertained whether this famous monarch exists at present, as an independent sovereign?

A more interesting question for a traveller is the possibility of crossing the unknown country between *Monomotapa* and *Congo*. The Portuguese and African slave merchants have already often conducted convoys of negroes from *Angola* to *Sena*, and from *Sena* to *Angola*. The two posts of *Pedras-negras*, in the interior of *Congo*, and of *Chicova*, in the interior of *Monomotapa*, are the respective points of departure; the distance is three hundred and twenty-five leagues, and its performance occupies a whole season: wandering hordes are frequently met with, and elevated plateaus are crossed where gold-dust is col-

lected. The reports received from Portuguese exiles residing at *Sena*, and transmitted by two learned men, *M. Correa de Serra*, and *M. Constancio*,^c leave scarcely any room for reasonable doubts. The objection drawn from the declaration of the governor of *Mozambique*, who declared himself ignorant of these journeys, loses its weight, when it is considered that it is not at *Mozambique*, but at *Chicova*, or at least at *Sena*, that information of the fact must be collected. Moreover, the governor consulted by *Mr. Salt*, appeared to have scarcely any idea of the circumstances generally known concerning the geography of *Monomotapa*.

Repulsed from the interior, our curiosity must rapidly survey the remaining part of the eastern coast governed by the Portuguese.

The coast of *Mozambique* every where presents dangerous reefs and shoals, interspersed with a great number of small islands. The rivers, although very wide at their mouth, do not come from a great distance; they take their rise from the foot of a long and high chain of mountains, to which, on account of their splintered peaks, has been given the Portuguese name of *Picos Fragosos*.

The port of the Isle of *Mozambique*, although of difficult entrance,^d is very good, and can afford secure shelter to many vessels. The Portuguese have a fort very well built, and hold under their jurisdiction the inhabitants, who are Moors, and are governed by a *Sherif*. The Portuguese ships, on their voyage to *India*, enter and remain in the port of *Mozambique* during a month; formerly, among other merchandize, they took in slaves, which they carried to *India*; but *King Joseph* the second, under the ministry of *Pombal*, forbade this commerce, and the present *Queen* has enforced the order. The principal objects of exportation at present are gold and elephants' teeth: these last are very abundant; they are kept in spacious magazines,^e and are shipped off during the month of *August* every year for *Goa*. There is also considerable trade carried on between this place and *Madagascar*; but all the commerce of these countries appears to be in the hands and for the profit of government.

The unhealthy state of *Mozambique* has induced the inhabitants to build at the bottom of the bay the large and pleasant village of *Mesuril*, at this time more populous than the city.^f The governor's palace raises itself majestically above a forest of cocoa, cashew, and mango trees. The principal nation on this coast is that of the *Macouas*;^g the *Monjous*, and the *Muzimbes*, live in the interior. The name of the first of these nations appears to deserve all the attention of geographers. It appears to furnish the solution of an ancient geographical enigma. The territory of *Vakvak*, or *Wakwak*, extends, according to the Arabians, from *Zanguebar* as far as *Sofala*; it is precisely the situation of the country of the *Macouas*; are not the two names identical? A slight alteration of orthography may have confounded these names in the Arabic.^h Such is the conclusion to which a rational etymology would seem to lead us. The truth is, that *Mucou*, in the dialects of southern Africa, merely signifies a white man, and is applied by the

^a Lichtenstein, Archives Ethnograph. t. I. p. 295.

^b Report of Dominican Missionaries, cited in the *Diario di Roma*, February, 1816.

^c Observador Portuguez, a periodical collection, No. IV.

^d Thomann, p. 54, 55.

^e Collin, Notice respecting *Mozambique*, in the *Annales des Voyages*, t. IX. p. 313.

^f Salt, Second Voyage.

^g Makua.

^h واقوات (vakvak.) ماقوات (makuak.)

inhabitants of the interior, indifferently to the Dutch and English at the Cape of Good Hope, or to the Arabs and Portuguese on the shores of Mozambique.^a Anciently, Wakwak may have had the same signification, so rapidly do the dialects of Africa degenerate : and the Makosses of the west coast,^b north of the Orange, probably derive their name from a similar origin.

The northern part of the government of Mozambique derives its name of *Querimbe* from that of a small island where the Portuguese have a fort, and where they allow the French to trade.^c *Oibo* is another of their posts. The islands of this coast are under the government of an Arab sheik, a vassal of Portugal, whose possessions terminate at Cape Delgado.

^a Campbell, II. p. 358.

^b Above, p. 110.

^c Blancard, Commerce des Indes Orientales, p. 20.

BOOK LXXII.

AFRICA.

Continuation of the description of Africa.—Eastern coast, or Zanguebar and Ajan.—Remarks on the Interior of Southern Africa.

THOSE regions which are least known attract more particularly the attention of writers who are anxious to satisfy the curiosity of their philosophical readers. We shall, therefore, devote a whole book to the description of countries, which both English and French compilers of geography generally dispatch in two or three pages.

Cape Delgado determines the southern limit of *Zanguebar*, or the coast of the *Zangues*, *Zingues*, or *Zindges*, for the name given by the Arabians to the native inhabitants is written in these three ways. The Arabian accounts are those only which appear to embrace the whole of continental Zanguebar. A great river, filled with crocodiles, sandy deserts, a burning climate, leopards of a large size, innumerable elephants, giraffes, and wild asses or zebras, mines of iron, from which the natives derive their favourite ornaments; the dourah and banana, as alimentary plants; as beasts of burden, oxen, which are also used in war; such are the traits of physical geography which can be collected in the writings of Ibn-al-Wardi,^a Massoudi,^b Edrisi,^c and Bakoui.^d The country of the Zingues, or Zindges, extends, according to the Arabians, from Abyssinia as far as the territory of *Wakwak*, that is to say, to the country of the Makouas, or the coast of Mozambique. It is in length seven hundred *farsangs*, by which are probably meant Arabic miles, for there are just seven hundred of them from Cape Delgado to Madagoxel, otherwise the whole coast from the straits of Babel-Mandel to Sofala must be included. The capital is *Kabila*, a name in which Quilooa may be recognized. The people live without law, and without any definite form of religion. Every one worships the object of his fancy—a plant, an animal, or a piece of iron; they, nevertheless, acknowledge a supreme God, whom they call *Maklandjlo*, a word which calls to mind the *Molungo* of the inhabitants of Sofala, and which thus attaches the Zingues to the race of Caffres. The king, who is said to assume the title of “Wakliman, or Son of the Supreme Lord,”^e marches at the head of 300,000 troops mounted on oxen. The Zingues conquered, during the third century of the Hegira, a part of Eastern Arabia and of Irac.

Europeans have visited only the islands and some maritime places of Zanguebar; we will follow them by ascend-

ing from south to north. The island of *Quilooa*, with the city of the same name, is situated opposite a peninsula, formed by two great rivers, the most important of which is called *Coavo*. This situation gives it three safe ports, spacious, and independent of each other. The banks of the rivers are ornamented by large trees, with villages interspersed, subject to the authority of the king of Quilooa. The island, accessible at all times, is the mart for the slave trade of the whole coast of Zanguebar. The continent produces a species of teak-wood, as durable as that from Surat, of the greatest beauty, and fit for the building of ships. The sugar-cane, cotton, and indigo, are its natural products. The baobab, the tamarind tree, the cedar, the tree that produces gum copal, and the coffee plant of Madagascar, are also found here. Game, and herds of every species of animal, particularly of the wild ox, as well as river and sea-fish, are here abundant. Elephants, rhinoceroses, panthers, lions, leopards, and wild asses or zebras, are often seen coming to the banks of the two rivers to quench their thirst. Fruits and vegetables are scarce. Millet forms the principal food of the natives.

The king is a negro, and receives much respect, but is under the guardianship of a Moorish vizier, called *Malindane*, who governs supremely in the name of this titular monarch, whom he may even depose by conferring the dignity on another of his own choice.^f This vizier appears to be a governor sent by the powerful sheik of the island of Zanzibar. “The inhabitants of this island,” says a learned author, “saw with concern that Quilooa alone had all the trade of the coast; they invaded this city in 1787. The king of Quilooa ceded to that of Zanzibar half the profits annually received from the slave trade. For the better observance of this treaty, the sovereign of the latter island has stationed a representative at Quilooa. Many French trading vessels resort thither every year.”^g The women cultivate millet and potatoes from custom and necessity; the men are employed either in fishing, hunting, or sleeping; the women also make mats and coarse stuffs for their own use.^h

The island of *Monfia*, governed by a sheik in the time of Ramusis, is at this time only inhabited by wild oxen, which the inhabitants of Quilooa go there to hunt.

Zanzibar is the largest and most important of all these islands; it is twenty-five leagues in length and five in breadth. It is said to have an excellent harbour. Orange

^a Notices et Extraits des Manuscrits, II. 38.

^b Etienne Quatremère, Mém. sur l’Égypte, &c. vol. II. 181, &c.

^c Hartmann, Edrisi, Africa, 101—104.

^d Notices, &c. II. 395.

^e The word *Wakliman*, quoted from Massoudi by Quatremère, appears to be Arabic. *Wakil*, is a governor, or viceroy. *Iman*, the name

of the Arab sovereigns of Yemen, Mascat, and Adel. The pretended king of the Zingues, may be only a vassal, former or present, of the Sultan of Adel or Mascat.

^f Cossigny, Moyen d’améliorer les Colonies, t. III. p. 247, &c.

^g Blancard, Commerce des Indes Orientales, p. 21.

^h Cossigny, ibid. III. 266.

and lemon trees display their golden fruits by the side of the cocoa nut and banana. Vegetables and rice are abundant. The inhabitants, like all those of the neighbouring islands, are Mahometans, and governed by a system of laws. The cities are adorned with mosques. The number of inhabitants is computed at 60,000, of which 300 are Arabs, and the rest a mixed race. The sheik communicates with the princes of Arabia; he is said to have expressed a wish to be placed under the protection of England.^a The exports consist of slaves, gum, ivory, antimony, and blue vitriol.^b

Pemba is still more fertile in fruits and corn. The inhabitants, a timid people, are dressed in stuffs of silk and cotton brought from India. Like the other islanders, they sail in their frail barks to Melinda and Madagascar.

Here ends altogether modern information. The interesting descriptions of Lobo, Barros, and Couto, are already three centuries old.^c Is the city of *Mombaza*, situated on an island formed by two branches of a river, still in the possession of the Arabs of Mascat, who, in 1698, drove out the Portuguese? Are the seventeen churches that adorned this city, well fortified by nature and art, still mosques? With whom do the inhabitants of these fertile and healthy places at present trade? Does the large and beautiful city of *Melinda* still continue the pride of these shores? Do they still see in its gardens the most delicious oranges? Do the Arabs, who now possess it, array themselves in silk and purple? Is the king still carried on the shoulders of his courtiers, and received by a choir of priests and young women, who offer him incense and flowers? Who now reigns in *Lamo*, a country famous for the large asses it produces? Over *Pate*, whence the Arabs of Mascat drove out the European traders in 1692? Over *Jubo* and its coast, infested by serpents? Over *Brava*, or *Berua*, a small aristocratic republic, the inhabitants of which worshipped stones anointed with the oil of fish?

These are questions that would have been resolved by the learned and intrepid Seetzen, if an enemy's hand had not cut the thread of a life so precious; for at the moment in which this traveller died, poisoned by the order of the Iman of Yemen, he was preparing to visit Melinda, and to collect among the Arabs of that city traditions and manuscripts relative to their knowledge of Africa.

But the principal features of geography are incapable of change.

The cities of Melinda, Lamo, and Pate, appear to be situated in the delta of a great river, called *Quilimancy*, which appears to be the same as that which, under the name of *Zeebe*, descends from the mountains of Abyssinia. The banks of the river, inundated and enriched by its waters, perhaps may correspond with the lively descriptions of the Portuguese; farther on, the moving sands, according to an Arabian author, have destroyed the city of *Lamo*.^d

Behind these maritime and civilized states are noticed the savage tribes of *Mosegueyos*, rich in cattle, who, during infancy, have their heads covered with clay in the form of a cap. Is not the name by which this nation is designated

Arabic? it would then only signify men armed with javelins.^e Farther north are the *Maracatas*, a people less rude, and having a good exterior. They observe the ceremony of circumcision. The girls preserve the treasure of their innocence by means of a suture, which the husband alone has a right to undo.^f

The accounts of the kingdom of *Magadoxo* or *Makadschou*, are more recent. A Lascar or Indian sailor, named Isuf, who has resided there sixteen years, has furnished the principal parts of the following account.^g The country, watered by a large river, abounds in corn, rice, fruits, cattle, red-haired sheep, horses, and camels. The extensive forests harbour bears! lions, panthers, leopards, and ostriches. The *pyon* is a bird ten feet in height. The description of an amphibious animal, denominated *bozer*, calls to mind the *Ornithorinchus* of New Holland. The population consists of a mixture of white, olive-coloured, and black men, who have pretty generally adopted the idiom of their masters, the Arabs. The king and great men are covered from the breast to the feet; the common people go nearly naked; the queen, by way of distinction, wears a robe of green silk, and her hair is ornamented with feathers of different colours. The king holds a court of justice in public, assisted by some counsellors. Criminals are either exposed to wild beasts, or dispatched with a club. The king is attended by a suite only during journies; at other times he has neither court nor guards, nor does any one salute him. The Mahometan religion, which prevails, appears allied to paganism; for different idols are seen both in the temples and houses. The violence exercised by the Portuguese in former times on this coast, who came for the purpose of procuring slaves, has left a deep impression, and Europeans are no longer received but with mistrust and much reserve.

The capital, which takes the name of the country, is a large and fine city, built at a short distance from the seashore. It contains the king's palace, several mosques, and houses of stone painted in fresco, with flat terraced roofs. In the burial place of the royal family, near the city, the tombs are of black and white marble, each adorned with a cupola surmounted by a magnificent pyramid. The urns enclosing the ashes of the kings and queens are all of gold, and surrounded by lamps of the same metal.

It is probable that the *Machidas*, mentioned by the Abyssinian historians, are no others than the *Makadschou*.

The coast of *Ajan*, presents to the eye of the navigator, only a desolate mass of rocks and sands, where, occasionally, may be seen a wandering ostrich. In proceeding round Cape *Guardafui*, the eastern point of Africa, the coast puts on a less barren appearance. The port of *Felis*, the isle of *Barbara*, the commercial city of *Zeila*, in a country producing fruits and corn, are little frequented by Europeans. The kingdom of *Adel* is the principal state of this coast, its capital is called *Auca-Gurel*, and the sovereign, like that of Yemen, assumes the title of *Iman*.^h The inhabitants of this coast, called *Berberes* by the Arabian geographers, have an olive colour, long hair, and do not in

^a Salt, Second Voyage to Abyssinia, &c.

^b The Iman of Muscat, in alliance with Britain, and aided by a British fleet, has extended his power along the coasts of Arabia and Africa, from the Persian Gulf to Zanguebar. The city of Melinda is now in ruins. The British have also aided him with their troops against the Wahabites in the interior of Arabia.—P.

^c Hist. de la Géog. v. I. p. 485, sqq.

^d Aboul-Mahasen, in Et. Quatremère, l. c. p. 188.

^e *عصا* (mosagge) javelin.

^f Lobo, Voyage, t. I. p. 282.

^g Narrative of the Lascar, Isuf, in Ehrmann, Bibliothèque des Voyages, et Mémoires Géograph. III. 75. sqq. (in German.)

^h Ludolf, App. ad Histor. Æthiop. p. 29.

the least resemble the Caffres. The horns of the cows are as large as those of the stag; the sheep have also some peculiarities; according to Hamilton,^a they are white, with a head of a shining black colour, small ears, large body, and juicy flesh; at the end of their tail, as broad as their buttocks, and from six to eight inches long, is an appendage also, about six inches in length, very like the tail of a hog. Hamilton's assertion is in some degree confirmed by Bartheima,^b who states his having there seen sheep whose tail weighed from twenty-five to twenty-six pounds; they had the head and neck black, the rest of the body white; others, entirely white, had a tail an ell in length, twisted like a vine, and the neck swelled with a kind of dewlap hanging to the ground, which they have in common with the Angora sheep, and some other varieties. M. Walckenaer has justly remarked their identity with a ram of antique marble,^c the living type of which is said to exist in the Alps; it appears to us, however, that the artist must rather have seen its model in Asia Minor. The sheep of Adel, instead of wool, is covered with hair as coarse as the bristles of a hog. The same effect is produced by the climate of Guinea and Barbary.^d The ancients were well acquainted with these Ethiopian sheep, as they called them.^e Our European breed, after having been transported to South America, has changed its wool for hair.^f These facts appear to diminish, in a great degree, the importance commonly attached to slight varieties of form, in a species so subject to the influence of climate.

Among the exports of the country of Adel, some Greek and Roman authors of the first and second centuries, name myrrh, frankincense, cassia, and cinnamon.^g The testimony of the ancients, repeated by Bartheima, has also been copied by Bruce. It is not improbable that the forests or groves, overspreading the interior mountains of Adel and Ajan, produce medicinal gums, odoriferous resins, and aromatic barks. We have seen, in the description of Guinea, that even the western coast of Africa produces some aromatic vegetables. We consider a great resemblance between the Flora of Africa and that of Arabia and India, as a probable result, not only of the similitude of climate, but of the commercial communications of the inhabitants. Have not some plants from Brazil flourished in the neighbourhood of Plymouth, the seeds of which had been transported by Portuguese vessels to Lisbon, and thence to England? Are not the vegetables of Germany diffused in the same manner over the coasts of Bergen in Norway?^h It must be confessed, however, that Bruce's assertions do not afford sufficient evidence for admitting the cinnamon, cassia, or even the coffee-tree, into the list of vegetables of the central region of Adel and Ajan. Myrrh only is at this time carried from the ports of Abyssinia to that of Moka.ⁱ

It now remains for us to penetrate farther into the interior of the continent. Unfortunately a few lines will be sufficient to include the vague traditions that have reached Europeans.

The *Giagas* or *Jagas* traverse immense deserts to the east of Congo. It is asserted, that these Tartars of the

torrid zone, after having joined the *Mou-Zimbes*, appeared as devastating conquerors on the coast of Quiloa. On the other hand, the name of *Mou-Jaco*, placed by Battel and Dapper very far to the north-east of Congo, appears to point out a temporary establishment of the *Giagas*. It appears to us that the *Zimbes*, or *Mou-Zimbes*, must be identical with the *Cimbebas*, wanderers to the west of the *Betjouanas*. Again, the *Mon-Gallos* or *Mou-Gallas*, on the coast of Quiloa, appear to be an emigration of the *Gallas* bordering on Abyssinia. It is from these data that the interior of Southern Africa appears to us an extensive plateau, where wandering hordes are dispersed without control, without laws, or any regular employment. This hypothesis appears confirmed by the two according testimonies that we are about to cite.

The accounts of the slave merchant of Mozambique, collected by Mr. Salt, inform us, that the two nations, called the *Eevi* and *Maravi*, are situated nine hundred miles at least from the eastern coast, and consequently in the middle of the continent: these nations, composed of white men, (olive-coloured are undoubtedly meant,) are concerned in the slave trade on the western coast. Seven months are required to go from Mozambique into their country, where a great lake of fresh water is to be found. This testimony merits greater attention, as the English traveller, in reporting it, endeavours to throw doubt on the subject.^k

According to M. Morice, of the Isle of France, who concluded in 1776, in his own private name, for one hundred years, a treaty of alliance and commerce with the *Moors* of Quiloa, a caravan of Africans every year leaves this city, which goes though the interior of the country to the western coast of Africa, and returns by the same road. They feed on the vegetables and fruits found on the road,^l and particularly on the tamarind. At the distance of some day's journey from Quiloa, a great lake is observed, designated as a fresh water sea; it is undoubtedly the lake *Maravi*. It is crossed on pieces of wood, and a halt is made on an isle found in the middle. The Africans assert that the termination of their journey is "a lake" of salt water. Vessels, similar to our own, are found there, and Europeans, to whom the slaves are sold. This account has been confirmed to M. Morice, in all the voyages which he has made to Quiloa, by many inhabitants who had performed the journey; and the coincidence of their reports does not admit a doubt of its truth.

From these reports, it may be presumed, that at present there are no considerable nations, even half-civilized, in the southern interior of Africa. This idea is farther confirmed by what is known concerning the manners of some tribes.

Immediately to the east of Congo, are the regions where are found the wandering and barbarous tribes, called *Jagas*, *Giagas*, or *Schaggu*, by travellers, and who give themselves the name of *Agaghi*.^m These people do not cultivate the soil, and possess only such cattle as they take in war; they invade the fertile countries of their neigh-

^a Hamilton, Relation des Indes Orientales.

^b Ramusio, I. p. 121—123.

^c Fabroni, del ariete gutturato, Florence, 1792.

^d Shaw's Travels, 241; Adanson, Hist. Natur. du Sénégal, 57.

^e Strabo, lib. XVII. p. 1177; Almel. Diod. Sicul. III. 8; Oppian, de Venat. II. 326. 379.

^f Catesby's Natural Hist. of Carolina, preface; Brown's Natural History of Jamaica, p. 488; Sloane's Natural History of Jamaica, II. p. 328; Bancroft's Natural History of Guiana, p. 121.

^g Galen, Dioscor. Plin. cited by Bochart, Phaleg. I. II. p. 23.

^h Notes of M. Correa de Serra, and of the late M. Wahl, communicated to the author.

ⁱ Blancard, Commerce des Indes Orient. 83.

^k Salt, Second Voyage.

^l Cossigny, Moyens d'améliorer les Colonies, t. III. p. 246. 250.

^m Lopez, l. c. p. 77; Battel, l. c. 974; Carli, Voyage au Congo,

hours, consume the produce, and, after having laid every thing waste, search after other booty. The Jagas devour their prisoners; they rub their generalissimo with human fat; he also wears a belt of ostrich eggs, and a sort of copper ring in the nose and ears. The women of the Jagas bury their children alive; the nation continues its existence only by rearing the children of neighbouring nations, torn from their parents at twelve years of age. The generalissimo, during the great sacrifices, kills with his own hand human victims. It is asserted that, at a certain festival, this chief orders a furious and hungry lion to be let loose in the middle of his subjects. The Jagas, far from avoiding it, consider it an honour to be killed by his murderous teeth. Old men, and the sick, are abandoned without pity. The dead are buried in vaulted tombs, dressed in their richest clothes, and have, as companions, two of their wives, who are buried alive. The Jagas, who have no horses, fight on foot with great intrepidity; they intrench their camps with diligence. This hideous nation has had its Alexander and its Semiramis. Under the command of *Zimbo*, they overran the interior of Southern Africa, and came down to lay waste Quiloa and besiege Mozambique. On its arrival before Melinda, the army of *Zimbo* suffered a total defeat, which was followed by the dissolution of his empire; but *Temba-Ndamba*, grand daughter of one of his generals, endeavoured by her laws or *quizillas* to restore the power of the nation. With a view of enforcing submission to her inhuman commands, she seized her young son, threw him into a mortar, crushed and pounded him, and then extracted from his wretched remains an ointment, some drops of which she applied to her body on every day of battle. The Jagas have preserved this ointment; and their chiefs, when anointed with it, consider themselves invincible.

The *Bororos*, to the north of Monomotapa, are a less barbarous people. The people who inhabit the shores of the lake Maravi, and who have considerable cities, are subjects of the empire of the *Bororos*. Among the names of these tribes, those of *Massi* and *Ruengas* are the most remarkable: the one recalls the ancient Massyli and Masæyli; the other appears identical with *Dar-Runga*, situated to the south of Darfoor, since this last people use an idiom entirely different from that of their neighbours, and appear therefore to be a colony come from a great distance.

The name of *Mono-Emugi*, or, according to a more authentic orthography, *Mou-Nimigi*, designates an empire or rather an oasis to the north of the lake Maravi. It is said to be populous, mountainous, and rich in gold mines.^a These mines are found in the province of *Goragua*; it is also known, from M. Seetzen, that in Dar-Bergoo, a dialect is known, called the *Gourangon*, which appears to indicate a province of the same name. The sovereign of *Mou-Nimigi* has the title of *aceque*, which is like the Berber word *amazeagh*, lord. Thus some scattered rays every where show a connexion between the nations of the southern interior, and those of Atlas and Nigritia. The *Mou-Nimigians* are said to be white, undoubtedly only as compared to negroes.

Only one part of this interior region has been visited by Europeans; it is the small state of *Gingiro*. Some parti-

culars concerning it are known, furnished by the Jesuit Anton-Fernandez, who attempted, in 1613, to pass from Abyssinia to Melinda, with an embassy, designed for King Philip the second of Spain.^b This country is situated on the banks of the *Zeebe*, which has its source in *Boscham*, a district of the kingdom of Narea,^c and opens for itself a passage across the mountains, dividing the two countries.

This river, which moves along a greater volume of water than the Nile, after having nearly surrounded *Gingiro*, which becomes in this manner a sort of peninsula, pursues its course, without interruption, to the sea, into which it empties itself near Melinda. To cross it in their country, the *Gingirians* kill a cow. They enclose the baggage in the skin, and fill it with air by blowing into it with force. They then fasten to it two poles, in the form of shafts, hang upon each side by pairs, to keep the machine balanced, which a good swimmer, placed at the head, draws by means of a rope, while two others push it on from behind. Their colour is of a less deep black than that of the negroes. Their features are as fine and regular as those of the *Abyssinians* and *Europeans*. The whole nation are slaves; every thing is the absolute property of the king. When he wishes to obtain any thing valuable brought by the merchants, he gives them in exchange the number of slaves required. For this purpose, he merely orders as many sons and daughters of the inhabitants as he wishes to be taken away. It is a right of the throne, consecrated by time; and wo to the person who is suspected to disapprove in the least of this barbarity; he will be immediately put to death. At his audience of leave, the king offered Father Anton-Fernandez the daughter of one of the first families of the kingdom as a slave, and on his refusal gave him a male slave and a mule. The crown is hereditary in the same family, but not in the order of primogeniture. The successor is appointed by force, at the peril of the electors' lives, who pass for great sorcerers, and appear to be a tribe of priests. After inauguration, the new king orders all the favourites of his predecessor to appear before him, and orders them to be sent after their beloved master into the other world. The house of the dead king is burnt, with every thing contained in it. The same is done after the death of an individual: even the trees and vegetables found in the neighbourhood are burnt, lest the spirit of the departed, habituated to the spot, should be tempted to return and haunt it. Before felling a tree, chosen to make the pillar intended as a support to the throne in the king's new dwelling, they cut off the head of the first man they meet belonging to a certain family of the kingdom, which, from that circumstance, is exempt from all other burdens, and many envy this honour. When the king goes to be installed in his palace, one or two other men of the same privileged family, according to the number of gates, are killed, that the threshold and posts may be dyed with their blood. On the day of his assuming the reins of government, his first act is to give orders for discovering throughout the whole of his kingdom all the men and women who are affected with scald-head, in order to prevent the propagation of the disease, which might terminate in affecting his majesty. The whole are cured by being sent beyond the *Zeebe*, where death awaits them all.

^a Jean dos Santos, la Haute-Ethiopie, liv. III. ch. 1.

^b See Tellez, Historia general de Ethiopia, a alta Coimbra, 1660, in folio, p. 312-329.

^c "The *Zeebe* is probably the *Wadi Borcha*, which, according to Makrizi, constitutes the frontier of Abyssinia." Vater Ethnographisch. Archiv. I. 242.

The king is seated on his throne, which is like a balloon, fixed in the manner of a cage at the top of the house, dressed in a robe of white silk of Indian fabric. Father Anton-Fernandez says, that *gingiro* means a monkey, and that the attitudes and grimaces of the king in his cage very much resemble this animal, adding, that similar to what monkeys do, the king, wounded in battle, is immediately killed by those who surround him, or in default of that by his relations, that he may not die by an enemy's hand. He is looked upon as a divine being, rival to the sun and his devouring influence. He goes out only in the morning, at break of day. If the sun has risen before him, he continues in the interior of the house the whole day, and neither goes up into his cage, nor transacts any business; for, say the Gingirians, two suns cannot shine at the same time, and when the other has taken the lead, the dignity of the king would be compromised, if he so far humbled himself as to follow.

After death, the body of the king, dressed in the richest stuffs, and enclosed in the skin of a cow, is drawn along the

fields to the burial place of the sovereigns, and deposited in a ditch left open; earth is not considered worthy of covering the remains of the rival of the sun, who can only have the canopy of heaven as a mausoleum. The body is inundated with the blood of a great number of cows killed by the side of the grave; and afterwards, one is killed every day, until the death of the king then reigning; the blood flows into the grave, and the flesh is the property of the priests who perform the sacrifice.

Among other ceremonies of inauguration, too long for description, the new king is obliged to crush between his teeth a certain worm brought to him, and which is supposed to have come from the nose of his predecessor.

Such are the rude and extravagant manners of the population of Central Africa. They afford little hope of interesting discoveries for history; neither, however, can it be supposed that a small number of men, well armed, would experience many obstacles in traversing these barbarous regions.

BOOK LXXIII.

AFRICA.

Continuation of the Description of Africa.—The Eastern African Islands—Socotora, Madagascar, Bourbon, Isle of France.

ON quitting the continent of Africa at its eastern point, the Island of Socotora^a immediately comes into view; its soil is dry, stony, and almost entirely destitute of water and vegetation: the sands of the shore are carried by the wind even to the summit of the central chain of mountains. Nevertheless, in the sheltered valleys, the best kind of aloes, as well as a great quantity of dates, are produced. It abounds in goats and poultry, but there are very few oxen. Besides the *mosunbrun*, or gum extracted from the aloe, cinnabar and dragon's blood are exported from the island.^b George Andersen, an unenlightened traveller, mentions his having there seen the cassowary. Ambergris is thrown up from the sea. Coral is very common, and the houses of *Tamarida*, the principal town, are constructed with it. The island has no perfectly secure harbour. It is governed by a sheik, who is subject to the Iman of Muscat or Arabia. The population of this island might furnish a subject for lengthened discussions. Philostorges, Edrisi, and Hamdollah, speak of a colony sent hither by Alexander the Great. During the time of Philostorges, the colonists spoke the Syriac language. Marco Polo assigns an archbishop to the Christians of Socotora. The Portuguese found there some Monophysite Christians, whose prayer-book appeared to be written in the Chaldean language. Again, in 1593, there was a Jacobite bishop in the island;^c but the sect of Nestorians also had followers under a separate bishop.^d Thomas Roe, among modern travellers, gives the most particular details of the inhabitants, and divides them into four classes—the Arabians, rulers of the country; their Mussulman subjects, or slaves; the *Bediognes*, ancient inhabitants confined to the mountains, who profess the doctrine of the Jacobite Christians; and lastly, a savage tribe, who live in the woods, without either clothes or houses. Its present inhabitants appear to be ignorant of the use of the musket, but, in commercial and other interested transactions, appear to partake of the vices of civilized nations.

This island, which even in periods of antiquity served as a station for merchants, might even now become an important one, to any nation wishing to trade with Arabia and Eastern Africa. Yet, since the sixteenth century, it has continued to be disregarded by Europeans.

At the distance of three hundred marine leagues south of Socotora, are a great number of small archipelagos, dis-

covered by the Portuguese, which, even at this period, are not well defined. On the charts prior to the *Oriental Neptune* of M. d'Apres de Manneville, the general name of *Almirante*^e Islands comprehended all those small islands situated between the 4th and 6th degrees of south latitude, and the 50th and 54th degrees of longitude E. from Paris. Within about forty years, many French navigators have made more observations, and have changed the nomenclature: they have applied the name of *Almirante Islands* to the more western group, composed of thirteen flat islands, furnished with fresh water, abounding in cocoa trees, and tortoises, often readily taken by the hand of travellers. A more eastern group has got the name of the *Seychelle Islands*.^f The largest, the isle of *Mahe*, is remarkable on account of the establishment formed there by the French, wherein they cultivated with success the nutmeg and clove trees. An excellent port renders this island important to navigation; the English on this account have taken care to have it ceded to them. It was to this spot that Napoleon, when first consul, exiled some turbulent friends of liberty, falsely accused as accomplices with the contrivers of the infernal machine. A quarrel with the inhabitants, probably on the subject of politics, was the cause of these unfortunate persons being again exiled. Some of them foundered on the Comora Island and were lost; others gained the African continent, where they probably suffered a slower and more painful death; at last, destiny also conveyed to an African island the man by whose orders so many victims had been exiled to the centre of the Seychelle islands.

The *Isle of Palms*, in this archipelago, is distinguished by a peculiar production, a species of palm, producing a fruit called the *Maldiver nut*, or *Coco de mer*. In this fruit there is nothing particular, except its form, which presents an appearance of two thighs. The kernel, which resembles that of the cocoa-nut, has a bitter and astringent taste.^g As the tree grows near the sea, the nuts, when they fall off, drop into the water, and are carried by the current as far as the Maldiver Islands, whence they are carried to India. Very singular medical virtues were formerly ascribed to its fruit; it was sold at a very high price. The Emperor Rodolphus the Second, could not procure one at the price of 4000 florins. The learned formed different hypotheses on the origin of this nut, and Rumphius considered it the production of a sub-marine tree. The palm tree producing it has only been found in this island; but as the sea carries it as far as Sumatra and Java on one side,^h and

^a Socotra.

^b Voyage to Socotora, *Annal. des Voyages*, t. X. p. 143.

^c Asseinanni, *Biblioth. Orient.* II. 456.

^d Croze, *Histoire du Christianisme des Indes*, p. 39. *Asseman.* III. 602—780.

^e Amirante.

^f The Seychelles or Sechelles.

^g Sonnerat, *Voyage à la Nouvelle-Guinée*, p. 4.

^h Marsden's *Sumatra*, p. 17. first edition; *Rumph. Herbar. Amboinense*.

Zanguebar on the other ;^a it probably grows in many other islands of the Indian ocean. The French and English having in a short time diffused a great many of them through India, this fruit lost its mysterious fame. It has, however, been found profitable to cultivate it in the Isle of France.

Many small islands, little known, among which are the *Seven Brothers*, *Diego Garcia*, *Adu*, and *Candu*, extend eastward from the Seychelles, to the Maldives, and even beyond the meridian of the Isle of Ceylon, in the direction of Sumatra. The are all uninhabited. To the south-west of the Seychelles, are also observed many small islands and extensive reefs uniting this archipelago to Madagascar and Africa. Thus, that part of the Indian ocean which extends from the coast of Zanguebar to that of Malabar, and from Arabia to the Seychelles and Maldives, forms a kind of separate sea, or, if it may be so called, a mediterranean sea.

The usual entry to this sea is the *Channel of Mozambique*, between Madagascar and Africa. To the north of this channel, interspersed with shoals and rocks, is the archipelago of the *Comora Islands*.^b They are four in number. That of *Anjuan*, or *Johanna*, properly *Hinzuan*, has a great advantage over the others in its commodious roadsteads, and watering places of easy access. It has a very picturesque appearance ; mountains, shaded with trees and fine verdure, varied by glens and intersected with deep valleys, majestically raise their heads one above another to a height of five or six hundred toises, and terminate by a peak more lofty, covered with eternal vegetation. The whole island appears to have undergone the action of a considerable volcano ; traces of the violence of fire are every where to be met with. It may contain about six or seven thousand inhabitants. The bay of *Machadou*,^c the usual place of disembarkment for European vessels, is on the north side. The town is about half a league from the anchorage, and is surrounded by walls fifteen feet high, and flanked by square turrets.^d The town of *Johanna*, situated on a handsome bay in the eastern part of the island, was destroyed by the Malgaches^e in 1790.

Angazija, or great *Comora*, situated twenty-five leagues to the north-west of Anjuan, is a vast assemblage of mountains, the different groups of which have their bases very near the sea-coast, and all unite in a common summit, of from twelve to thirteen hundred toises in height. It has no roadstead, but many villages.

Mohilla,^f or *Malale*, five leagues west-south-west of Anjuan, is encompassed with a chain of rocky shelves. It has two small towns.

The isle of *Mayotta*, the smallest of the four, seven leagues south-south-west of Hinzuan, affords only one bad anchorage. Its population is reduced to twelve or fifteen hundred individuals.

Situated under a fine sky, the Comora isles enjoy a very healthy climate. The country every where exhibits the appearance of a luxurious vegetation. At Hinzuan, every defile is a garden watered by a limpid stream. The sum-

mit of each eminence^g is covered with wood, its foot is shaded by groves of cocoa, mango, orange, and lemon trees, and tufts of bananas, intersected by fields of potatoes and yams. The Indian purging nut,^h the guava, the tamarind, and other trees less known, adorn the sides of the hills ; wild indigo and the sugar cane are abundant.

The principal domestic animals are the goat and the zebu.ⁱ In the fields are found pintados and quails, as well as several species of turtle-doves ; among these is one very beautiful ; its plumage is ash-gray, shaded with blue, green and white ; its neck and legs are extremely long, its bill is yellow and much pointed. The brown maki appears to be the only inhabitant of the forests.

Numerous flocks of a species of hawk fly near the surface of the sea. This bird, in its size and plumage, resembles the sparrow hawk ; it is so far peculiar, that it lives only near the coast, feeds only on fish, and yet is not possessed of any of the characters that distinguish aquatic birds ; its feet are not even half-webbed. The waters of this archipelago are not very well supplied with fish.^k

In the Comora isles none of those troublesome insects are found that desolate India, the coast of Africa, and the island of Madagascar ; but the fields swarm with small mice.

The population is composed of negroes intermixed with Arabs, who, at the period of their numerous emigrations about the twelfth century, established themselves in these islands as well as on the coasts of Africa and in Madagascar.

Thick lips and prominent cheek-bones assimilate the lower classes to the blacks of Mozambique ; the sultan and nobles have retained the fine and expressive countenance of their Arabian ancestors ; large eyes, an aquiline nose, and a well-formed mouth, are features common to them all, and among them are observed heads of a striking character. The common idiom is a mixture of Arabic and of the language of Zanguebar.^l

The Comorans are, in general, mild, honest, hospitable, very affable, and have already attained a degree of civilization not to be found in the inhabitants of that part of the continent, or of the great island to which they are neighbours. They have much politeness in their manners, good sense, cultivated understanding, and a certain poetic turn, that imparts to their conversation an eastern grace. Yet although many among them can read and write, they keep no register either of public or private occurrences, and, whenever disputes arise, the truth of facts, and their date, are decided by the oldest persons among them. Europeans shipwrecked on these islands have always experienced the most generous treatment. Some Arabs engage in agriculture, and possess large estates in the interior of the island. Others are employed in the mechanical arts, weaving, working in gold, &c. Their skill in working is as wonderful as the badness of the tools which they make use of. Others apply themselves to navigation, and undertake voyages as far as Bombay and Surat. The natives, however, are generally very bad soldiers, cowardly and pusil-

^a Lobo, Voyage d'Abyssinie, I. p. 53.

^b Comoro, Commorro.

^c Matsaudo.

^d Annales des Voyages, t. XIII. p. 136. (Essai sur les Comores, par Capmartin et Epidar. Colin.) Notice on Hinzuan, by Sir William Jones, in the Asiatic Researches, v. II.

^e Natives of Madagascar.

^f Mouhillly.

^g "Morne," mountain, or high hill ; a word used in the French colonies.—P.

^h "Pignon d'Inde."

ⁱ Indian cow, or hunched ox.

^k Annales des Voyages, t. XIII. p. 141.

^l Grosse's Voyage to India, 43. (Germ.) Bruns, in his Africa, conjectures that Carmolah, in Edrisi, is Comora ; and that in place of *Nanah*, the proper reading is *Zanah*, that is to say, *Zuanah*, one of the names given to the island of Hinzuan.

lanimous. The Madecasses frequently make descents on these islands, carry off cattle, and reduce men, women, and children to slavery.

Their houses are simple and even miserable. The women's apartments are separated from the body of the house by a small inner court, inaccessible to strangers. The only appearance of luxury among them is the immoderate use of musk, the smell of which completely infects the houses; they have also the eastern custom of tinging their nails of an orange colour, extracted from the *henna*, so much celebrated by the poets of the east. There is nothing remarkable in the dress of the men. The dress of a woman of rank, whom M. Collin, of the Isle of France, saw on the terrace of one of the houses, appeared very similar to that of the Indians on the coast of Malabar. She wore several necklaces and bracelets of coral, long ear-rings, and a ring of gold passed through the cartilage of the nose; her hair was covered with ornaments. She appeared handsome, but her colour was very brown.

Mahometanism is the religion of the country, but the common people worship Fetiches, as well as attend the mosques.

The sway which the sultan of Anjuan exercised formerly over the Comora Isles, has ceased, on account of the weakness to which the state has been reduced, by the wars waged by the Madecasses since the time of Beniowsky. The nobles have a share in the government, are engaged in commerce, and are the purveyors to European vessels. Little is known of the constitution and laws of this country. Theft is punished by the loss of a hand, and a second offence by that of the other hand.^a

A short passage brings us to one of the largest islands of the world, to a country more interesting from the variety of curious objects it presents, than from its extent, and from the importance it might possess in the hands of an active nation. The island of *Madagascar*, the indigenous name of which is asserted to be *Madecasse*, can claim its share among the traditions conveyed to the Greeks and Romans, concerning the immense Taprobane, which, according to the accounts of the natives, was situated so far to the south, that neither the constellation of the Bear nor the Pleiades were there visible, and "the sun appeared to rise to the left." These particulars, as well as its dimensions, and the great lake situated in the centre of the island, agree with Madagascar, while the latitudes marked by Ptolemy apply to Sumatra, and all the other circumstances lead us to Ceylon. In the island *Phebol*, so named in a writing attributed to Aristotle, may be recognized the Arabic name of *Phambalou*, given to this island. The Arabians probably visited it in their earliest voyages to India, and long before the time of Mahomet. The first certain idea of it was transmitted to us by Marco-Polo. The Portuguese, who discovered it in 1506, under the command of Lourenço Almeida, gave it the name of *Saint-Laurent*,^b the French called it *Dauphine*.^c

This island is more than 340 leagues in length, and in some places, 120 in breadth, giving it 28,000 square leagues of surface.^d Although almost wholly comprised within the torrid zone, it affords, on account of the eleva-

tion of its surface, the most agreeable variety of seasons, and enjoys in some degree all the advantages of temperate climates. A double chain of mountains, from twelve to eighteen hundred toises high, traverses it from north to south, enclosing, in all probability, a sort of central plateau, which separates the two maritime parts almost equally, and gives rise to several rivers abounding in fish, and subject to periodical inundations. The most considerable are the *Murundava*, on the western coast, the *Mananzari* and the *Manangara* on the eastern. The *Andevourante* is navigable for canoes to the distance of thirty-five leagues. The *Manguru*, one of the finest, rises from the lake *Antsianaze*, twenty-five leagues in circumference. Four other lakes, *Rassoï-Be*, *Rassoï-Massaïe*, *Irangue*, and *Nossi-Be*, extend along the eastern coast, communicating with each other; the latter, in particular, would make an excellent harbour, if the tongue of land separating it from the sea could be cut. The sea, however, it might be feared, would soon form another impediment. These stagnant lakes render the climate unhealthy.

Many bays and roads, in different parts, upon the same coast, have often attracted the attention of the French government, since the time of Henry IV. who first entertained the design of occupying the south-east part by erecting in *Dauphine* bay fort Dauphin, at present in ruins. During the last century, Cossigny, and after him Beniowsky, attempted to form establishments in the north-east part of the island, in the fine bay of *Antongil*, in which is port Choiseul. The bay of *Saint-Lucia*, to the north of *Dauphine* bay, was explored in 1787 by M. Lislet-Geoffroy.^e Foulpoint and *Tamatave*, situated nearly in the centre of the coast, have always been frequented by the French, who thence obtained many articles of the first necessity, for the use of their colonies in the Isle of France and Bourbon. English ships generally put into *Saint-Augustin* bay on the western coast. The bay of *Louquez*, between the bay of *Antongil* and *Cape Ambre*, is neglected; it is, however, considered a good harbour, and capable of receiving whole fleets.

Upon the whole, the situation of Madagascar at the entrance of the Indian Ocean, and opposite the south-east coast of Africa; its fertility, progressive elevation, and the varied exposure of its soil; the different modifications of the air, which, in an extent of fourteen degrees from north to south, is favourable to the cultivation of all vegetables peculiar to hot and temperate climates; in a word, every thing tends to make this island one of the most important in the world, in regard to colonization and commerce.^f Its possession is become still more important since the loss of the Isle of France, which, moreover, would never have answered for a great marine establishment, indispensable to every power wishing to establish itself in India on an advantageous and firm footing. On the other hand, Madagascar abounds in convenient anchorages, in timber, and all kinds of provisions.

This fine island is so rich in productions, that a long time would be required to become acquainted with them all. It is strewn with rock-crystal; pieces of the greatest beauty are found, even twenty feet in circumference; the sands

^a Annales des Voyages, t. XIII. p. 163.

^b San Lourenço, St. Lawrence.

^c "Ile Dauphine," Dauphin Island.

^d Map of Madagascar, in the Annales des Voyages, t. XI. Annales des Voyages, t. II. p. 42.

^e Annales des Voyages, t. XI. p. 5. Lescahier, Mém. de l'Institut, Sciences Mor. et Pol. IV. 2. Bory de Saint-Vincent, III. 271. sqq. Tombe, I. 91. sqq. Cossigny, I. 233. sqq. Blancard, XXIV. introduction.

of this island, which are only the remains of this rock, would make very white glass; garnets, very fine black agates, and many other precious stones of inferior quality, are also found. The mountains contain tin and lead, but particularly iron, mines of which were formerly worked by the natives. There appears also to be copper, pale gold, and other metals.^a In the western part, beds of rock salt are also found.

The whole shore is rich in wood. The *ravinale* grows in the marshes, and along the rivulets; it resembles the palm-tree in its trunk, and the banana in its leaves. These provide the Madecasses with napkins, table-cloths, dishes, plates, and spoons; if cut into, when they first appear, a water fit to drink is procured: the wood is used for the building of houses. In the fields and forests are found many trees and shrubs, useful both in the arts and for the purposes of life: such are the *hazame*, a tree of the shape of a poplar, the fruit of which affords the resin *tacamahaca*,^b the *tanoma*, another resinous tree; the *sago* tree producing the alimentary and pectoral substance called *sago*, the leaves of which are used to manufacture stuffs in high repute; the pyramidal *badam* tree; the aromatic *bachibachi*; the *malao-manghit*, producing a nutmeg; the *rharharorac*, two species of *coffee-tree*; the *ravine-sara*, or clove cinnamon, a valuable tree, the nuts and leaves of which have an exquisite perfume; an essence and oil is procured from it, more esteemed than that of the clove; the *voaé* or *voaène* shrub, affording elastic gum; many varieties of the cotton-tree, particularly that known as the largest species; the *malgache* indigo plant, in sandy situations; *mimosas*, among others the mimosa-lebbek, called *black-wood*; it yields a sort of gum copal, the greater part of which is lost under the trees. Among the plants are the ginger, pepper, the curcuma, or Indian saffron, tobacco, in high estimation, rice, and yams of several sorts; the *sanga-fanga*, which has a great analogy with the papyrus of the ancients. This country also furnishes some costly woods, such as sandal wood, and several varieties of ebony, black, white, green and white spotted. The vine flourishes here; and the sugar-cane grows spontaneously. M. Cossigny^c gives a detailed list of more than one hundred indigenous vegetables of Madagascar, that merit being transplanted into the other French colonies; and M. Milbert cites one hundred and sixty-seven brought by M. Rochon to the Isle of France, in 1768.

The animal kingdom, as in all islands, offers less variety. The elephant and lion are unknown, but the *antamba* appears to be a species resembling the leopard. The *farassa* resembles the jackal. The oxen of Madagascar are all zebus, or oxen with bunches of fat on their shoulders; some weigh from seven to eight hundred pounds. Some are entirely without horns; others have horns attached only to

the skin, moveable and pendent. This last species, called in question by ignorant scepticism, has been observed by Flacourt^d and Bucquoy.^e It is also found, according to other testimonies, in the kingdom of Siam,^f and in Paraguay.^g Many Greek and Roman writers have described it in the clearest manner, so that this kind of ox either must have lived formerly in the countries known to the ancients, or must have been brought thither from Madagascar or Siam.^h The simultaneous existence of this animal in Madagascar, and in the Indo-Chinese countries, may be considered as an additional proof of the emigration of the Malays to Madagascar. The other remarkable animals are wild asses, with enormous ears: wild boars, said to have horns;ⁱ goats, extremely fruitful; sheep, with large tails; the *sandrec*,^k a species of hedgehog, proper for eating; the great bat, whose flesh is very delicate; the *makis* and the *ai*, an animal found only in this island. Flacourt adds to these, "the *brek*, or the one-horned goat." The forests harbour fowls, pintados, pheasants, wood-pigeons, geese, ducks, and parrots. Flacourt enumerates more than sixty birds little known. Locusts sometimes darken the air, and are considered dainty food by the natives. Four species of silk-worm are found here, which suspend their coods to the trees. The waters of Madagascar swarm with fish, and the shores abound in different sorts of crustaceous animals and shells, which attract the passenger's attention. Sitting under a lemon-tree near the sea-shore, during the ebb, Mandelsloh made an excellent meal by seasoning the oysters taken at his feet with the juice of the lemons that hung over his head. The whales that frequent this part of the sea, particularly during the rainy season, are a peculiar species:^l it is that of the Indian ocean, found as far as the coast of Brazil. Important fisheries might be established here.^m Shark fishing might also be profitable.ⁿ

We shall now describe, principally from the Memoirs published in our *Annales des Voyages*, the different provinces or countries into which this island is divided, beginning with the eastern coast, then passing to the districts in the centre, and terminating with the western coast.

The country of the *Antavarts*, that is to say, "People of Thunder," because storms generally rise in that direction, reaches from Cape Ambre to within a few leagues of Foulpoint, and comprehends the great bays of Vohemare and Antongil, as well as Isle St. Mary, called in the country, *Nossi-Ibrahim*. It is well cultivated; and particularly abounding in rice, of which 3,000,000 pounds might be exported every year. The Antavarts manufacture very fine cotton cloths, much esteemed in commerce, and make frequent excursions to the Comora Islands, to seize slaves, since Beniowsky shewed them the way. They understand the use of fire arms, and are formidable enemies.^o Some have considered them descendants of the Jews. They cer-

^a *Annales des Voyages*, II. 38. XI. 12, &c.

^b Milbert, *Voyage à l'Île-de-France*, t. II. p. 125 et 131. *Annales des Voyages*, I. 53.

^c Cossigny, *Moyen d'améliorer les Colonies*, III. 123.

^d Flacourt, *Histoire de Madagascar*, p. 151. "Cattle which have pendent horns, merely attached to the skin of the head."

^e Bucquoy, p. 104.

^f Vincent Leblanc, *Voyage*, &c. edition de Bergeron, t. I. p. 121. 210. "Horns attached to the skin, and not to the top of the head, and moveable like the ears."

^g Fischer, *Spanische Miscellan.* p. 86. (Berlin, 1803.)

^h Aristot. *Histor. anim.* t. III. 9. p. 324. edit. Scalig. "In Phrygia, and other parts, are oxen which move their horns like ears." Oppian, *Cyneget.* II. 90—98. He observes, that they have bunches of fat on

their shoulders: βαθραὶ δ' ἀνὰ γένυι σαρκεσ. Antigon. *Caryts. Hist. mirab.* cap. 81. p. 129. Agatharch. ap. Phot. p. 1363. Diod. Sic. *Biblioth. hist.* t. III. 35. p. 201. Plin. *Hist. mundi*, VIII. 21. (in Ethiopia;) XI. 37. (in Phrygia.) *Ælian. Solin. &c. &c.* Beckmann, (*Litt. des Voyages*, I. 566.) conjectures, from a verse of Claudian, that the Apis, or sacred ox of Egypt, was of this variety

ⁱ *Sus larvatus*, Fr. Cuvier. It has on each side of its muzzle, near the tusks, a large tubercle resembling a nipple, supported by a bony protuberance.—P.

^k Tenrec.

^l Cossigny, t. III. p. 171. sqq.

^m *Conquest of Bourbon*, p. 32. London, 1811.

ⁿ Cossigny, III. 186.

^o Fressanges, *Annales des Voyages*, t. II. p. 12.

tainly preserve traditions concerning Noah, Abraham, and Ibrahim, Moses, and David; practise circumcision; celebrate the Sabbath; and sacrifice animals.

The province of the *Bestimessaras* or *Betsimicaraes*, or united people, formed by the union of the *Zaphi-Dzabais*, the *Zaphi-Dieunisois*, the *Antantsicanes*, the *Anterouibais*, and others, is the most frequented by Europeans. They buy here a great quantity of rice, and much cattle. There are two excellent roads, Foulpoint, where the French had an establishment, and Tamatave, which perhaps is a more advantageous one. The *Bestimessaras*, governed by *Malates*, or chiefs of white extraction, who tyrannize over them, are the handsomest men in Madagascar, but dissembling, drunken, cowardly, and addicted to theft. M. Chapelier,^a who describes them in this unfavourable light, nevertheless adds, that they are very industrious, and susceptible of civilization.

Farther on we meet with the *Betanimenes*, or people of the Red-land, otherwise *Sicouas*, bounded on the west by the *Bezonsons*, and on the south by the *Antaximes*; governed by the natives of the country, they enjoy great tranquillity. It is the finest, most fertile, and most populous among the provinces on the sea-coast, and its inhabitants are the mildest and most sociable of the whole island. It is generally traversed to visit the interior, because it is more clear of wood than the others. The traveller every where finds a good reception, and his eye is continually delighted by a variety of agreeable situations, as far as the majestic mountains of lake Nossivee and Besoure, which terminate the landscape. The country owes its fertility partly to the river *Andevourante*, named after the capital of the *Betanimenes*, which is also the largest town of Madagascar. It can furnish 10,000 armed men.

The *Antaximes*, or people of the south, are represented as poor, uncivilized brigands,^b without industry or commerce. They even neglect the cultivation of their land, watered by the two finest rivers of Madagascar, the *Man-guru* and the *Mananzari*. The air is much more healthy than in the northern part, but there is no good harbour, so that Europeans avoid this inhospitable coast.

The islanders of this part are of a very black colour, with frizzled hair. They use a shield, which is not the case with the other *Malgaches*.

The country of the *Antambasses* reaches, to the south-eastern extremity of the island, from the Bay of Saint Lucia as far as the extremity of the valley of *Amboule*, a distance of about twenty-five leagues, and as far from north to south. *Siangourih* is its capital. The men are tall, robust, always cheerful, mild, and generous, but idle to excess, and live in the greatest wretchedness. The women do not in general attain the natural height; as in other parts, they are generally ugly, and very debauched. *Dauphine bay* is on this coast.^c

Warm chalybeate springs are found in the valley of *Amboule*; also excellent pasturage, and fine rice-fields, but little wood: the mountains surrounding it are burnt up as far as a third of their height. From seven to eight hundred oxen, and from twelve to fifteen thousand weight of rice, may be procured from it yearly.

The *Antanosses* on the south, and the *Taissambes* on the west, formerly united in one nation with the *Antam-*

basses, are at this time governed by chiefs of the same Arabian family which at that time was in possession of the whole southern part of Madagascar.

We will now pass into the interior. The *Antambanivoules*, or *Ambanivoules*, that is, the inhabitants of the land of bamboos, less corrupted than the people of the sea shore, are considered by these as uncivilized. Shepherds and husbandmen, if they are without refinement, they at least avoid its vices. They lead a frugal and laborious life, and are very hospitable. They sell to their neighbours, particularly to the *Betsimicaraes*, who would otherwise perish of want, rice, poultry, honey, and *toc*, a drink made with the fermented juice of the banana and the sugar-cane.^d

The *Antsianakes* inhabit the district between the sources of the *Manangara*, and the confines of the country of the *Antavarts*. They were considered robbers, because they refused admission into their territory to the white robbers, but peaceable travellers have lately visited their villages, well regulated and tolerably well built, their plantations of rice, and their mountains, whence, it appears, they obtain silver. The salubrity of the air of this country would render it particularly favourable for the residence of a European colony, who would find positions easy of defence. Indian merchants enter it from the country of the *Seclaves*, situated to the north-west.^e

The province of the *Bezonsons* or *Besombsons*, comprehends fourteen villages, situated in a valley encompassed by high mountains, that divide them to the east from the *Betanimenes*, and to the west from the *Antancayes*. The traveller is surprised, in crossing these mountains, to see at his feet well cultivated plains, watered by many streams, and to find an assemblage of men perfectly isolated, living peaceably, enjoying the pleasures of life without dreading its vicissitudes, and anxious to share them with him.

Until now, handsome, black, and well-made men only have been seen; here the features are sensibly altered, and announce a mixed people, and at the same time mark a line of distinction between the different races.

The difference is still more strikingly marked in the *Antancayes*,^f who exactly resemble the Malays in their features, in the tawny colour of their skin, their straight and rough hair, low stature, in their dress, language, and manners. Like the Malays, they consider their beauty to consist in having black teeth; they pluck out the beard, lengthen their ears by piercing them with great holes, and rub the body with tallow, which makes them very dirty. They are deceitful and perfidious, like the Malays. Their chiefs are cruel and despotic, having the power of life and death over their subjects, a custom unknown in other parts of Madagascar, where the criminal is tried in a general assembly.

The province of *Antancaye* is a plain eighty leagues in length, fifteen in breadth, bounded on the east by the mountains of *Befour*, and on the west by the *Manguru*, that washes the foot of the mountains of *Ancove*. This immense plain is covered with innumerable herds of cattle. A sort of red and highly nutritious rice is grown here.

The towns, placed on the tops of the highest mountains, are well fortified, and almost impregnable.

^a Fressanges, *Annales des Voyages*, XIV. t. II. p. 59.

^b Fressanges, *Annales*, t. II. p. 17.

^c Lislef Geoffroy, *Annales des Voyages*, t. II. p. 51.

^d Chapelier, *Annales des Voyages*, t. XIV. p. 60. Ep. Collin. *ibid.*

^e 88. Fressanges, *ibid.* II. p. 18.

^f Du Maine, *ibid.* XI. p. 46—49.

^g Fressanges, *Annales des Voyages*, t. II. p. 20.

The province of *Ancove*, bounded on the east by the Manguru, touches at its western part the country of the queen of Bombetoc, and the province of St. Augustin bay. It is subdivided into two parts, the northern and southern, is governed by separate chiefs, who, although relations, are continually at war. This country enjoys a pure and wholesome air, but cold. It is much in want of wood, and the inhabitants are obliged to have recourse to stubble, to the dung of oxen, and to a red earth, hardened by the sun, to cook their food, and warm themselves. The population is prodigious; the plains and tops of mountains are covered with villages. *Tanane-Arrivou*, the capital of the most powerful of the two chiefs, may contain twenty-five thousand inhabitants; it is situated on a very high mountain, and has the appearance only of a labyrinth surrounded by ditches.^a

The inhabitants of *Ancove*, called *Hovas*, or *Ambolans*, are very unhappy under their tyrants. Letters, however, from the Isle of France, inform us that their king has lately ceded all the territory to the north of his kingdom, as far as the bay of Louquez. They have but few oxen, but possess a great many sheep with large tails; rice, manioc, potatoes, pistachios, yams, beans, and the vine, are the principal vegetables cultivated for their subsistence. They resemble much the Antancayes; but they are whiter, tall and well made, although with somewhat slender bodies. Their hair is soft and long, the nose aquiline, and the lips small, like those of the Indians.^b

Of all the tribes dispersed over the surface of Madagascar, that of the *Hovas* is the only one that comes near to us in their knowledge of the arts. They extract from the bowels of the earth many kinds of iron and lead ore; this last mineral is used to give a varnish to their earthen ware, each piece of which, whether large or small, is always made in the form of a jug mounted on a pedestal. They work in metal as well as the Europeans, and imitate with great ease most of the objects of foreign manufacture shewn to them. I have seen, says M. Chapellier, knives, scales, and a spring movement, the polish of which surprised me not less than the pains these islanders had taken to imitate their models. They imitate piastres so well that many merchants have been deceived by them. They understand making many fine and very durable stuffs: it is they who furnish those webs of calico^c so highly valued, which are sold in Madagascar at a slave a-piece. It is a stuff of a blue ground, on the sides of which are small bits of tin, very artfully worked, so as to be continuous and closely united into one with the wool, which is always of silk and cotton. In the middle of this tissue are many fine flowers, embossed with tin, which produce a brilliant effect. Their stuffs in general are very close and strong, an advantage not possessed by those brought to them from Europe; in consequence, the inhabitants for the most part are not anxious to acquire the latter. In other respects they are deceitful, treacherous, and cunning; even selling each other. A European,^d while trading for slaves in this province, after having bought a certain number from an accredited merchant, was much astonished on the following day to see another who wished to sell him the very merchant with whom he had just been trading.

The *Hovas* also makes slaves of the *Andrantsayes*, a tribe of shepherds, uncivilized and cowardly, who join them on the south, and who are in the habit of purchasing peace by offering their enemies herds of cattle as a tribute. Every thing concurs to establish the opinion, that this is the nation of *Quimos*^e of which Commerson, the Abbé Rochon, and Raynal, make mention, and which they place exactly in the same spot. M. Fressanges, having had an opportunity of seeing a dwarf slave of this province, took the greatest pains to ascertain this fact. The seller told him that these deformed beings were really not very uncommon among the *Andrantsayes*, but all the slave merchants assured him that in no part did there exist a tribe of dwarfs; nevertheless, these merchants ought to be well acquainted with Madagascar, as they traverse the island in all directions. Having inquired of the dwarf whether his father and mother were also as small as himself, he answered positively in the negative, and that it was on account of his being so small that he had been sold. M. Fressanges has not even heard the word *Quimos* pronounced throughout the whole of Madagascar, and when by the sport of nature, a dwarf is born, they call it *zaza coute coute*, or child man.

We shall now take a view of the southern and western coast. After the country of the *Antanosses*, or the province *Carc-Anossi*, terminated by the river *Mandrerei*, three others are observed along the coast, that of the *Ampatris*, the *Mahafalles*, and the *Caremboules*, neither of them well cultivated, but rich in wood and pasturage. Wild hogs and wild oxen appear to be masters of this country. The tree *Anadzahu* acquires a gigantic height. In the interior live the *Machicores*.

That part of the island called by navigators, the province of the bay of *Saint-Augustin*, is not well known. It would appear that the coast at least, which is low and sandy, has the indigenous name of *Siveh*. The inhabitants are called *Buques*. Their king resides at *Tulcar*. Shipwrecked Europeans have experienced here the most humane attentions; their property has not only been respected, but the natives have assisted them in building their huts, and have provided them abundantly with eatables.^f This last circumstance does not coincide with the account given by other travellers concerning the barrenness of the country, which, according to them, produces only tamarind trees, and some roots, the ordinary food of the natives, with the addition of the milk of their cattle.^g The *Yonggelah*, which runs into Saint-Augustin's Bay, descends from mountains where gold, topazes, rubies, and other precious stones, are found.

The bay of *Murundava* receives a great river of the same name, which is also called *Menabe*, and in the early accounts, *Mansiatre*. This river receives, from the north and south, many considerable streams. In the valleys, watered by these branches, several nations are known; among these the *Erindranou* are the most powerful. The *Vohits-Anghombe*, who are placed near the sources of the *Menabe*, appear to us to be identical with the inhabitants of *Ancove*.

The whole coast, from *Murundava* on the south, to *Ancuala* on the north, belongs at present to the kingdom

^a Chapellier, *Annales des Voyages*, t. XIV. p. 61. sqq.

^b Idem. Fressanges, *ibid.* II. p. 22—24.

^c "Toiles de calin," literally, tin-cloths. *Calin* is an alloy of lead and tin, such as is used in lining tea-chests.—P.

^d *Annales des Voyages*, t. II. p. 23.

^e *Kimos*.

^f Shipwreck of the *Winterton*, in the *Gentleman's Magazine*, p. 377, April, 1794.

^g Mackintosh, *Voyages*, &c. lett. 70.

of the *Seclaves*, which, at least in several places, is continued into the interior as far as the chain of central mountains. This country, full of plains and meadows, feeds a prodigious number of cattle.^a The lands, generally of an indifferent nature, particularly along the coast, are traversed by regular roads, guarded by picquets of soldiers. The rivers have no fish, but the forests abound in game, and the coast is covered with banks of pearl-oysters. The government, in 1791, was under the authority of a queen, who resided at *Bombetoc*, or *Ampampetoca*, a very populous city, although built in the form of a village. *Mouzangaye*, a well regulated city, with a population of 30,000 souls, among whom are 6000 Arabs and Indians, who appear to be under the sole protection of the queen. The port was frequented by vessels from Surat, which brought cloths in exchange for gold dust.^b There are mosques, houses for education, and workmen of every kind. The *Seclaves*, oppressed by despotism, are less warlike than the eastern *Madecasses*, although they possess the same religious and moral ideas.

In the northern extremity of Madagascar, volcanoes are said to be in a state of activity, but these districts have not yet been examined in detail.

The entire population of Madagascar amounts to one million and a half, according to those who estimate it at the lowest, and to four millions, according to those who estimate it at the highest point. It is made up of many races. Some tribes, or rather castes less numerous, are evidently of Arabic origin. The *Zaffe-Ramint* trace their descent from *Imina*, the mother of *Mahomet*. The chief of this family was formerly the acknowledged sovereign of the greatest part of the island, but the direct line of these princes is extinct. The *Rhoandrians* are their nearest descendants, and born without any mixture. The *Anacandrians* and the *Ondzassis*, are the offspring of an intercourse with the natives. The olive colour of these descendants of the Arabians, accords to them the title of white, or *malate*. The *Zaffe-Ibrahim*, of whom we have already spoken, are descendants either of Jews or of Arabians, who left their country before the time of *Mahomet*. In the district of *Matatane*, a third caste, less warlike, but learned,^c and of a good form, came to establish themselves here at a more recent period. They are called *Kassi-Mambou*, and by the natives *Anta-Mahouri*, which, according to *M. Collin*, signifies inhabitants of the land of the Moors. Their colour, more allied to black, and the woolly nature of their short hair, point out the Arabic colonies of *Zanguebar* as their native country. All the considerable tribes, however, who constitute the great majority of the inhabitants, have either the fawny complexion and the straight hair of the Indians, or the black skin and the frizzled hair of the *Caffres*. It appears that this island was peopled by very ancient emigrations both from *Caffraria* and *Malabar*, that although its

position is nearest to Africa, yet that the periodical winds and a chain of islands connect it with Asia. The name of *Malegaches*, assumed by the ancient inhabitants, that of *Mal-Dives*, or *Male-Bar*, and others, point out this descent, which, as far as regards the Asiatic emigration, is still more completely demonstrated by the composition of the prevailing language of Madagascar.

This language offers some Arabic words, and others allied to the idioms of the *Caffres*; but its principal roots may be traced in the Malay, or in the dialects derived from that language, and spoken in Java, at *Timor*, in the *Philippines*, in the *Marian isles*, and in all the archipelagos of northern and southern *Polynesia*. The most remarkable natural objects, the greater part of the numerals, and the days of the week, have the same names in the two languages.^d There is the same want of declensions and inflexions, the same mode of uniting words, the same abundance of vowels. Notwithstanding what has been advanced by the learned continuator of the German *Mithridates*, we can affirm that the *Madecasse* appears intimately connected with the Malay languages, and particularly with the *Javanese* and *Timorian*. In what proportion are the *Caffre* or *Zanguebar* words? Are they sufficiently numerous to induce us to consider the primitive population as an African colony, subjugated and civilized by the Malays? What influence must be attributed to the Arabs, and from what period? These are questions which the present state of our knowledge does not allow us to solve.

The *Madecasses*, or *Malegaches*, live for the most part in a state of unbridled liberty. The *Seclaves*, the *Antan-cayes*, and the *Hovas*, groan, however, under the yoke of a tyrannical government. Independently of these states, the *Madecasse* acknowledges no supreme authority except the *cabares*, or public assemblies; it is in these that public affairs are decided, and that law-suits are tried. The speeches there made often evince a natural and energetic eloquence. Among many of the tribes, hereditary classes are acknowledged, the privileges of which are not well defined. The *Voadrisi*, are the native sovereign lords, subjugated in some cantons by the Arabians. The *Lohavoits*, are lords who govern in their villages. The *Oudzoa*, constitute the people. There are besides numerous slaves. Similar to what takes place in the South Sea Islands, the right to kill certain animals, and to eat certain meats, is reserved to the higher classes.

The deplorable superstitions to which the *Madecasses* are subjected, are mingled with some notions respecting good and bad angels, borrowed from the Arabians. The priests, called *Ombias*, practice medicine, and sorcery; they also possess some books in the *Madecasse* language, written in Arabic characters. No ceremony is mentioned which can be considered as forming part of a public worship.

langham, Mad.; *taugan*, Javan. Tooth, *niffi*, Mad.; *niphin*, *Marian Islands*. Drink, *minum*, Mad.; *minom*, Mal.

One, *isse* or *essou*, Mad.; *essa*, *Timor*. Two, *roua*, Mad.; *noua*, *Timor*. Three, *telloo* and *toulo*, Mad.; *telou*, high Javan; *tolla*, low Javan. Four, *effus*, Mad.; *opat*, Jav. Five, *limz*, Mad.; *lima*, Mal., Javan; *rima*, *Polynes*. Six, *enem*, Mad.; *minum*, high Javan. Seven, *fitou*, Mad.; *itou*, *Timor*; *peti*, high Javan. Eight, *valou*, Mad.; *wolo*, high Javan. Nine, *sini*, Mad.; *senaw*, *Timor*. Ten, *poulou*, Mad.; *sapoulou*, Mal., Javan, &c. Days of the week, commencing at Monday, in Malay, *senene*, *telassa*, *robo*, *camisse*, *zouma*, *saplou*, *lahati*; in *Madecasse*, *sinine*, *talate*, *roubia*, *camisse*, *zouma*, *saboutsi*, *lahadi*.

This list is taken, for the Madagascar, (*Madecasse*), from *Flahault*, *Mégiser*; from the Madagascar Catechism; and from the MS. Notes of *M. Collin*, *Chapelier*, &c. It is founded, in respect of the *Javanese*, and *Timorian* words, upon some vocabularies printed at *Batavia*.

^a Du Maine, *Annales des Voyages*, t. XI. p. 29.

^b Idem. XI. 26.

^c They profess to teach the Arabic language.

^d The heavens, *danghitsi* or *langhits*, Mad.; *languit*, *Marian* and *Philippine Islands*; *elandchi*, *Friendly Islands*. The earth, *tane*, Mad.; *tana*, Malay, Tagal. The moon, *voulau*, Mad.; *woulau*, Javan. Star, *quintané*, Mad.; *vintané*, Malay. Fire, *afe*, Mad.; *afi*, Mal., Tagal. Island, *noussa*, Mad.; *noussa*, *Timor*. Mountain, *vohits*, Mad.; *woukir*, high Javanese. Day, *anto* or *anrou*, Mad.; *arri*, Mal.; *ao*, *Friendly Islands*. Father, *baba* and *amproi*, Mad.; *bapa*, Mal.; *amai*, Tagal. Mother, *nène*, Mad.; *nène*, Mal. Son, *ana* or *zanu*, Mad.; *onax*, Mal. Man, *ouroun* and *ouloun*, Mad.; *orang*, Mal. Husband, *luhe*, Mad.; *lanau*, Jav. Woman, *vayavé*, Mad.; *vabai*, Mal. Head, *loha*, Mad.; *holo*, Javan; *olo*, Tagal. Eye, *massou*, Mad.; *matta*, Javan. Nose, *grung*, Mad.; *hiroung*, Jav. Tongue, *lela*, Mal.; *leda*, Javan. Hand,

Circumcision is in use throughout the whole island, although the Malegaches are not acquainted with the religion of Mahomet. It is also performed with particular ceremonies, giving no indication of Arabian tradition. On the day set apart for this festival, all work ceases in the village. Parents bring, laden with a great quantity of strong liquors, as many oxen as they have children to circumcise. After having slaughtered the oxen, they place their horns on notched posts. Dances, feasts, and sham-fights, announce the opening of the ceremony. The *empananguin*, armed with the fatal knife, demands his victims. Then the sports cease, fathers hasten to present their children, and while they amuse these innocents, the empananguin cuts off what he considers superfluous, places the strips upon a board, and applies astringent powders to stop the bleeding of the wounded part. Guns are loaded, each with a piece of the skin cut off, instead of ball, and a general discharge is made. The ancient custom obliged the empananguin to swallow the strips. Feasts and dancing recommence, and do not cease until there is no longer any strong liquor left.

The ordeal by poison, or the tanguin, is one of the most atrocious superstitions of this people. The tree that furnishes the *tanguin* is very widely diffused throughout Madagascar;^a birds avoid its foliage, reptiles dread its shade; a species of crab alone approaches it. It has a nut shaped fruit, which, taken in a certain quantity, causes death in less than an hour, if the unfortunate victim is not saved by a violent evacuation; even then he is afflicted during the rest of his life with violent pains. This terrible punishment is inflicted on those whom the hatred or the jealousy of the people accuses of having caused the death of one of their compatriots. It is considered a sort of *judgment of God*, to whom is remitted the decision of a criminal process. The *cabare*, or assembly of the people, is consulted before they go to this extremity; the relations and friends, both of the person dead and the person accused, superintend the ceremonies that precede and accompany the operation of the tanguin. If the accused survives (which happens in about one case in five) the accusers become his slaves.^b

The *Dine* is an imprecation, in the form of an oath, invoked upon the head of one, or several chiefs. The formula of this oath consists in these words: "I swear that I am not guilty of that of which I am accused. If I speak false, may such a chief be destroyed by thunder, or changed into *such* or *such* an animal, by the power of the Supreme Being." The accused being impeached and convicted of perjury, is condemned to slavery by the chief towards whom he directed his oath.

A custom more worthy of human nature, is the *oath of blood*, or solemn alliance contracted between two persons, who bind themselves to perform to each other every sort of good service, and hence acquire all the rights of relationship. For the purpose of celebrating this ceremony, the principal persons of the place are assembled. The

new friends wound themselves slightly in the pit of the stomach; then soak two pieces of ginger in the blood that flows, and each eats the piece moistened with the blood of the other. The person appointed to perform the ceremony, mixes in a cup some fresh water, salt water, rice, silver, and gunpowder; these are called witnesses of the oath; he dips two lances in this mixture, and, striking them with the instrument by which the wound was made, he pronounces terrible imprecations, generally couched in these terms: "Great God! master of men and of the earth, we invoke thee as a witness to the oath we have sworn: may the first who breaks it be destroyed by thunder; may the mother who conceived him be devoured by dogs!" then, driving away the evil genius whom they believe always ready to oppose good intentions, they dart their javelins towards the four cardinal points. They call to witness the earth, the sun, and the moon, and drink a little of the beverage prepared by the master of ceremonies, exhorting all the powers to convert it into poison for him who does not take the oath with sincerity.

In sailing one hundred and eighty leagues eastward from Madagascar, the *Mascarenha* isles^c come in view; for by this name must be called collectively, after the person who discovered them, the isle of *Bourbon*, or *Mascarenhas*, properly so called; the *Isle of France*, called *Cerne* by the Portuguese, and *Mauritius* by the Dutch; and the islands of *Rodriguez*, and *Cargados*, which complete this archipelago.

The Isle of Bourbon^d seems to be entirely composed of two volcanic mountains, the origin of which, says M. Bory de St. Vincent, is undoubtedly at two periods very distant from each other. In the southern part, which is the smallest, the subterranean fires still commit ravages; that of the north is much larger; the volcanic eruptions that formerly made great devastations, are now no longer in action: species of basins or valleys; rapid rivers, hemmed in by perpendicular ramparts; hillocks thrown into these valleys, by which their course is impeded; basaltic prisms, often disposed, as in the island of Staffa, in regular columns; beds of lava in great variety; deep fissures, that indicate a general convulsion; all attest ancient and dreadful physical revolution. The narrow beach, interrupted in several places, is composed, as at Teneriffe, only of rolled pebbles of basalt or other lavas; these stones are washed into the sea by the rains; true sands are no where to be found; what is improperly called by that name is composed of calcareous rubbish and of marine bodies thrown upon the shore by the waves, or it exhibits in miniature a collection of all the lavas of the island, which the motion of the tides has reduced to very small round pieces, of a bluish slaty appearance.^e

What is called the Windward part, comes into view on approaching Saint Denis by sea; it is the pleasantest part: that called the Leeward, is considered the most luxuriant; but is somewhat arid; springs are scarce. The former,

^a The tanguin, (*Pentandria monogyria*.) Flowers terminal and paniced; corolla infundibuliform, with five oblique rose-coloured divisions; throat closed by five scales, furnished with a whitish down; tube very long, channelled and villous within; stamina sessile; anthers supported upon threads which adhere to the tube of the corolla, and have at their summit a projection in the form of a hook, on which the stigma is supported; the style slender, equal in length to the corolla; stigma capitate, villous at its top. Calyx with five whitish pointed divisions; the three exterior large, the two interior smaller; the peduncle long and greenish; each bifurcation of the panicle enveloped at its base by

a concave and whitish bractea. Leaves thick, petiolated, oblong, entire, and bordered by a cartilage. (MS. Note of M. Chapelier.)

^b Mem. Manuscrit de M. Collin.

^c "Iles Mascareignes." *Mascarenha Isles* is not found in the English geographies. *Mascarenhas* is the Portuguese name for the island of Bourbon, from Pedro Mascarenhas, its discoverer.—P.

^d Called by the Portuguese, *Mascarenhas*, by the French, *Bourbon*, and afterwards *Reunion*.—P.

^e Bory de St. Vincent, *Voyage aux Iles d'Afrique*, t. I. p. 264; II. 372; III. 147.

more even, rising from the sea by an easy ascent, to the summit of the island, tempered by continual breezes, and cultivated with care, often recalls an idea of Europe, and particularly of Languedoc, while at a distance the nature of the vegetation is not distinguished. Plantations of clove trees, resembling pleasure groves, immense coffee plantations, and golden fields of corn, agitated by a continued waving motion, adorn this country, of which they constitute the wealth.

The port of *Saint Denis*, alone affords access to this island; it is an open road. The mole, constructed by the orders of M. de la Bourdonnaye, has been carried away by the waves. *Saint Denis* is not properly a city; it is literally a village, the streets of which are bordered by pallisades or walls, resembling country highways. There was a French establishment in this isle as far back as 1654. M. Poivre, author of the *Voyage of a Philosopher*, was governor of these islands in 1776, and introduced the cultivation of the clove with great success. They are also partly indebted to him for the bread fruit tree, the nutmeg, and cinnamon. The soil of the island is, in general, excellent; but as it is composed almost entirely of one great mountain, the rains attracted by it carry along towards its base the light particles of the soil that owe their existence to animal and vegetable deposits, so that the summit of the mountain is merely a naked and desolate rock, at the same time that the land becomes better as it approaches the sea-shore. The cantons situated on the leeward coast, enjoy a climate and temperature very favourable to the perfection of the coffee-tree; but unfortunately this very effect contributes to the multiplied growth of insects that destroy the plants. Its produce is estimated at 73,200 bales, of about a quintal.

The culture of cloves, on account of its extent, is next to that of coffee in importance; but the cultivator can never reckon upon its produce with certainty; it is very abundant one year, and very deficient another. In the present state of its culture, the produce is estimated, in an abundant year, at one million and a half of pounds.^a Cotton is at present less cultivated than it was formerly, particularly since a disease ravaged the plantations. This disease, the nature of which has not been made out, does not affect the vigour of the plant, but prevents the development of the seed, and reduces the product to a mere nullity. This inconvenience, in addition to long commercial interruption, has induced the cotton planters to convert their lands imperceptibly into plantations of corn and coffee. The produce of corn is about 14 millions of pounds weight. It formed the principal resource of the Isle of France, for the Isle of Bourbon does not consume more than two millions of pounds in the year. Maize and potatoes are also cultivated. The total product of the island is valued at 7,100,000 francs.

In the Isle of Bourbon, the grants of land are very vaguely determined. Instead of fixing the extent by a given measure, they merely specify, that lands situated between such and such rivers or ravines, and those that are extended from the sea, as far as the declivity of the mountain, are the property of such a one. These rivers, however, which, during the rainy season, are liable to change their bed, often ruin by their inundations a considerable part of the lands, and produce, by this disorder, a considerable depreciation in the farms. To appreciate the utility of an

exact limit, it must be observed, that such lands as have been surveyed, and inclosed by land-marks indicating their limits, have always paid double, treble, and even four times more than they had done before this operation.

The revenue raised by government in this island, arises from a capitation tax laid on the negroes, and from direct taxes upon carriages, palanquins, and horses, registers, and stamps, and from licenses for the sale of arrack.^b The duties on the importation and exportation of merchandize are not productive. The whole public revenue may be estimated at 1,150,000 francs. The royal domains are of considerable extent, but in a great measure in the hands of runaway or rebel negroes. There is also a considerable part of them on the coast, consisting of lands of very good quality. In 1811, the population amounted to nearly 80,350 inhabitants; of these 16,400 are whites, Europeans or creoles; 3496 free negroes, and 60,454 slaves. The armed force amounted to 4493, composed of 573 troops of the line, 417 creole sharpshooters,^c 900 national guards, 2300 creole militia, and 145 pieces of artillery.

The *Isle of France*, less fertile, and of less extent than that of Bourbon, is indebted to its harbours and roads for a greater commercial and military importance. It was the centre of the French navigation in the East Indies. It was the point from whence issued those indefatigable privateers, the terror of the opulent English. Conquered at length by a formidable English army, this rich and warlike island has been left in the hands of a power, which will, no doubt, appreciate the valour, public spirit, and talents of this little nation.

The Portuguese looked on this island in no other way than as a watering place. The Dutch, who established themselves here in 1639, made known its fertility;^d having been attracted, however, to the Cape by a prospect of greater gain, the inhabitants abandoned it in 1712. It was only about the year 1734, under the government of M. de la Bourdonnaye, that the French establishment began to be of some importance. There are two harvests annually of wheat and Indian corn; they are not, however, sufficient for its consumption. The coffee is of an excellent quality: the clove retains all its perfume; the cotton and indigo plants find many favourable spots for growth; but the fickle nature of the inhabitants, always looking out for novelty and profit, induces them to pass rapidly from one kind of culture to another.

There are in this island many of the smaller breed of monkeys, who do a great deal of harm to the plantations. The jacquier, and the rima, another tree rather different in appearance, are here cultivated under the name of the *bread-fruit tree*, but the bread-fruit tree, so much celebrated by navigators, has only recently been introduced into the colony. It is still scarce, because it is difficult to propagate.

The form of this island, according to M. Bory de St. Vincent, is an irregular oval: it is rather more than eleven leagues in its greatest length, which extends from northeast to southwest, and rather more than eight leagues in its greatest breadth, which is from east to west. The reefs render disembarkation in general dangerous. By following the different windings of the coast, its circumference is found to be about forty-five leagues. The land rises gradually from

^a Conquest of the Island of Bourbon, in 8vo. London, 1811.

^b See the pamphlet quoted above.

^c "Tirailleurs."

^d Valentyn, Oostindien, t. VIII. Kaapsche Zaaken, p. 155.

the coast. The centre of the island is a wooded plateau of from 200 to 250 toises high. In the centre of this table land rises a conical pointed mountain; its situation has given it the name of *Piton du milieu de l'île*, or Central Peak, which is 302 toises in height. Among the other mountains, that of the Black River is 424 toises high; that of *Pieter-Both* has on its conical summit a mass like a cap, which seems to threaten the surrounding country with its fall.

From the top of the Pouce may be distinguished to the north certain volcanic islands, that appear to form part of a submarine crater. Between these rocks and the mountain stretches a low level plain, where are found only some fragments of lavas which belonged to ancient currents, all the rest is calcareous, consisting of madrepores and shells formed at the bottom of the sea.^a

Port North-West, or Port Louis, (the name of the city situated at the point of debarkation,) may contain 4000 whites, or free blacks, and double that number of slaves. The houses are almost all built of wood, but elegant in their forms. The public buildings are of a very good architecture. The principal streets are planted with black-wood, a handsome tree of the genus *mimosa*, the flower tufts of which, in the spring, form an agreeable contrast, by their white, yellow, and delicate rose colours, with the new and dense verdure; but this tree soon loses its leaves, and becomes loaded with dried husks.^b This city is not without its scientific and literary institutions; the *Societe d'Emulation*, which is formed here, has enriched our *Annales des Voyages* with very interesting memoirs.

In traversing the interior, to go to *Port Bourbon*, the second town, the road passes through a delightful country, where the dwellings of the colonists are so many temples raised to gaiety and hospitality; in a short time the traveller is immersed in humid forests, decked with mosses; he makes his way over the rapid and foaming torrent, by leaping from rock to rock; he takes his rest by the noise of cascades, by the murmur of zephyrs perfumed with the sweetest odours; he enjoys those pastoral scenes so eloquently traced by the pen of the author of Paul and Virginia, assisted by the ingenious pencil of M. Milbert. In a northern direction, the romantic district of *Pamplermouses* presents to the lovers of botany the celebrated *Jardin de l'Etat*,^c where the vegetable riches of the whole east flourish. These details, however, are too well known to appear in this work; we must only point to our readers the chart of the island, by M. Hubert Brué,^d as the most accurate, in which they may follow, in their excursions, the numerous travellers who have described this colony, for a long time the subject of so much pride to the French, at this day the subject of so much regret. Let us terminate this sketch by some statistical data. The population of the isle consisted in 1806, according to a census, of thirteen thousand nine hundred and fifty-two free persons, and sixty thousand six hundred and forty-six slaves; total seventy-four thousand six hundred and eighteen. It is believed that, at the moment of the conquest, it had reached

the number of ninety thousand souls. The revenue was valued, for the year 1810, at a million, and from 6 to 700,000, francs. It arose chiefly from custom-house duties. Among the principal expenses paid out of the revenue,^e was that for the purchase of corn and flour.^f

The island of *Diego Rodriguez*, which supplies the Isle of France with many thousands of turtle, has lately received some inhabitants. Before that time an incredible number of crabs formed its sole population.^g

In a course directed to the south-east of this island, towards those of St. Paul and Amsterdam, the navigator might perhaps reach the famous island of *Juan de Lisboa*, the doubtful existence of which has so much occupied the attention of navigators and geographers; nor have they hitherto, by their researches, made out any thing satisfactory.

Hugh Van Linschoten, in his chart of the Indian Ocean, published in 1638, delineates two islands, at this day unknown, the one to the south of Mascarenhas, in 26° of southern latitude, called *Juan de Lisboa*, and the other to the south-east of Rodriguez, in 28° of latitude, which he calls the island *dos Romeiros*: they are distant from each other about two hundred and forty leagues.^h

The chart of *Robert Dudley*, author of the *Arcano del Mare*, published in 1647, presents to the south-west of *Maurizio*, two islands, the one called *Santa Apollinia*, the other *Dascaienhas*, and to the east, at a distance of from 3° to 4°, two other small ones, marked simply as English discoveries. No island is marked in that part of the sea where *Juan de Lisboa* is looked for; but this note is found; *The longitude of the island Romeras de Castelhanas* (reckoning from the peak of the Azores) is 98° and a half, and the latitude 28° 20'.

Texeira's chart, printed in 1649, points out to the south of Mascarenhas, in 26° of latitude, the *Island dos Romeiros dos Castelhanos*, and to the south-east of *Diego Rodriguez*, another island called *dos Romeiros*, distant one from the other more than 290 leagues.

Pieter Goss, in the chart published by *Van Keulen* in 1680, places the island of *Juan de Lisboa* to the south of Mascarenhas, in 26° and a half of latitude, and the *island dos Romeiros dos Castilhanos*, in 28° and a half of latitude, and 15° to the east of the meridian of Mascarenhas. But in another chart by *Van Keulen*, much more modern, we find only the island *dos Romeiros*, situated in 28° of latitude, and 11° and a half to the east of the meridian of Mascarenhas or Bourbon.ⁱ

The various conjectures of later hydrographers, being founded entirely upon individual opinion, afford less interest.

D'Anville, in 1727, unites the two islands *Juan de Lisboa* and *Romeiros* into one, and places it immediately to the south of Bourbon, under the name of the *Island dos Romeiros dos Castilhanos*, or of *Juan de Lisboa*; but rejects it altogether in 1749. *Dapres de Manneville* makes no farther mention of it in his *Eastern Neptune*.

Thus, after having during nearly a century prolonged

^a Bory de St. Vincent, t. I. p. 211, &c. &c. Comp. Bailly, Voyage de Milbert, II. 92.

^b Milbert, Voyage to the Isle of France, I. 129.

^c Public Garden.

^d Atlas des Voyages, de M. Milbert.

^e "The revenue was exhausted by the expenses of the island."

^f Milbert, t. II. p. 232—241.

^g Leguat, Voyage des Indes.

^h Vol. II.—Nos. 71 & 72.

^h *Dos Romeiros* occurs in G. Mercator's map, by his son, 1593: both it and *Juan de Lisboa*, in Maginus Ptolemy, Anb. 1617. *Dos Romeiros*, lat. 28°, 36°, 39°. South, and long. 90°, 80°. East: in different maps. *Juan de Lisboa*, lat. 28° South, long. 86° East of Terceira. Both places are probably from Vertomann.—Ed. Ptol. Mag. p. 25. 177. 284.

ⁱ Memoir of M. Buache, amongst those of the Institute, Sciences Mor. et Polit. t. IV. p. 91. sqq.

its uncertain and wandering existence in the charts, at one time alone, at another in company with one or two islands, under the name of dos Romeiros, or even itself by that name, the island Juan de Lisboa appeared to be overwhelmed in the depths of the ocean, like the supposed southern continent.^a Nevertheless, a tradition of its existence, preserved among some descendants of pirates, established in the isle of Bourbon, gave it new interest about fifty years ago. In the Isle of France were handed about, notes and extracts of obscure, incoherent, and contradictory journals, to which, however, some importance was given by the comments of European geographers. These notes, added to a memoir on the Isle of Bourbon, presented to the general committee of the Indian Company, on the 11th of February, 1771, established as a principle, "that the island of Juan de Lisboa appeared imaginary to those navigators only who had not found it out." As a proof of this, they declare "that a bucanier had disembarked on it, *not more than six years ago*, and had killed, according to his own account, twelve or fifteen oxen in less than two hours!" They farther bring forward the testimony of a certain M. Boynot, who "assures us that he had seen and sailed round it towards the end of the year 1707, in returning from the Isle of Bourbon to Pondicherry." How is it possible to doubt his veracity, since he has the modesty to assert, that "he is indebted for this discovery to some bucaniers at that time on board his ship, and takes care to tell us that, by passing to the south of Madagascar, he very much shortened his passage," although the assertion is in direct opposition to all that is known concerning the winds and currents in the channel of Mozambique. Farther, this companion of bucaniers observed this island exactly as Teixeira represents that of dos Romeiros, and yet he had not seen the chart of this Portuguese, nor that of Van Keulen, when, *in conversation*, he was spoken to about the island of Juan de Lisboa. "This circumstance renders it credible," adds the note, "that what M. Boynot asserts *is true*, we being convinced that he would not willingly have imposed upon us."

More reliance is placed upon the "authentic discovery" made by Captain Sornin, in passing from the Cape of Good Hope to the Isle of France. This happened on the 1st of May, 1772, in south latitude $26^{\circ} 30'$, and $63^{\circ} 50'$ east of Paris. "From day-light to noon," says the extract from his journal, "the winds had made the round of the compass, with squalls, rain, thunder, and lightning; the sea very high, the air much heated." At ten o'clock in the morning he sees land very distinctly in the north-west. He immediately tacks to reconnoitre it, is satisfied of it at eleven o'clock, tacks about with the wind astern, runs towards the east, conceiving "that it might be the southern point of Madagascar," and on the 12th puts into Rodriguez, where he finds three leagues difference to the east, and supposes that this land, according to his reckoning, "is placed to the S. S. E. of Rodriguez, at a distance of one hundred and forty-two leagues." What confusion! How is it possible in this account of a ship tossed about in a storm to find a confirmation of the existence of Saint Juan de Lisboa? Vice-Admiral Thevenard, who appears to give credit to it,^b relies on Captain Donjon, lieutenant of a

ship not named, which is probably, however, that of Captain Sornin. According to this officer's journal, he saw land on the 27th of April, 1772, at half-past nine in the morning, "in a very violent storm, with much rain, thunder, and lightning," at a distance of from ten to twelve leagues in the west, in east longitude $76^{\circ} 34'$, and south latitude $27^{\circ} 26'$, observed at noon. He did not lose sight of the land from eleven o'clock till night, continuing the tack of east-south-east, and arrived on the twelfth day at Rodriguez, with forty-seven leagues difference to the east, which made him think that this land exists in that part of the sea between 76° and 80° of longitude, and in $27^{\circ} 30'$ of latitude. But in a private letter to M. d'Entrecasteaux, with an extract of his journal, and a view of the land, Captain Donjon, after having undoubtedly completed his observations in his closet, fixed the estimated longitude of his pretended discovery at $73^{\circ} 36'$, which he no longer hesitates to designate by the name of Saint Juan de Lisboa.^c

However frivolous and unsatisfactory these accounts are, the governing authorities of the Isle of France have nevertheless often ordered their official verification. The researches of M. de St. Felix, in 1773, and of M. Corval de Grenville, in 1782 and 1783, have been fruitless; but it would appear that they have not been sufficiently extended towards the east, within the space that separates Saint Paul from the Maldive Islands. M. Rochon adds, at the end of an extract from M. Sornin's journal, inserted in his voyages to the East Indies: "In returning from Madagascar, we thought at one time that we perceived the island of Saint Juan de Lisboa, but the illusion was caused by clouds, to which the most experienced mariners are too often exposed." Kerguelen and Marion have also searched for it in vain.^d Notwithstanding all these negative testimonies, many trading captains have recently maintained their having visited Juan de Lisboa.

This island then is a true haunting-spirit. It appears as a phantom to a certain select few, and disappears from the sight of the profane whenever they approach it.

A new hypothesis has been proposed by M. Collin: he believes that the name of Juan de Lisboa, in the ancient charts, merely designates the Isle of France.

Nevertheless, the secretary of the government of Mozambique has assured him that, among the papers deposited in the archives, exists the proces-verbal of the evacuation of the Portuguese colony of Juan de Lisboa; as well as an inventory of the effects transported from that island to the coast of Africa. All the efforts of M. Collin, to procure a sight of it, have proved fruitless. It is not known whether it was a permanent establishment, a post, or a mere attempt at settling. The year, and even the century, is unknown: moreover, neither the coast nor the island is known which at the time bore a name not considered by the Portuguese Teixeira worthy of being introduced into his chart. It appears certain that it could not have been the Isle of France, then well known to the Portuguese by the name of *Cerne*.^e

We conceive that the island of Juan de Lisboa is identical with that of Romeiros, and that it may, notwithstanding all doubts on the subject, really exist, but that it ought

^a Compare Book VII. vol. I. p. 60.

^b Mémoires relatifs à la Marine, t. IV. p. 428.

^c Mémoire de M. Buache, p. 296-308.

^d Collin, Mém. sur Juan de Lisboa, Annales des Voyages, t. X. p. 364.

^e Yet *Cerne* was rather applied to Madagascar. The old maps have both Mauritius and Bourbon without names. In 1598, Mauritius received its present name. Magin. Ptol. 25. Cluv. Geogr. p. 412. Rob. Nav. Intr. p. 27. and p. 145, above.

to be looked for in the meridians to the east of the isles of Saint Paul and Amsterdam, which, with Kerguelen's land, appear to us to indicate a submarine chain, either in the direction of Cape Comorin, or of Cape Leuwin.

The Islands of *Saint Paul* and *Saint Peter*, the last of which has also been called *Amsterdam*, have been objects of singular confusion. According to the navigator who first examined them with care, that of Amsterdam, or Saint Peter, is the most northern. It consists of a conical mountain, the summit of which appears to be the chimney of an extinct crater. A layer of turf three feet in height covers the pumice stone, or ancient lava. Thick groves render access to the interior very difficult; but the trees, not being able to push their roots far under ground, remain small. Lizards, and the trace of a fox, are supposed to have been seen. The Island of *Saint Paul*, the most southern, is in shape a circular mountain, hollowed in the centre in the form of a crater; the sea, in consequence of the falling in of one of its sides, has penetrated into this basin. The pond or lake filling up the bottom, contains an immense quantity of fish, particularly excellent perch. Hot and chalybeate springs flow among the lavas, interspersed with patches of fine green turf.^a This description, so satisfactory and so worthy of the ingenious observer to whom we are indebted for it, has been set aside by the presumptuous caprices of some modern navigators. Mr. Barrow, misled by the author of the charts of Cook's voyage, has described at length the island of Saint Paul, by the name of Amsterdam, and appears astonished at the pretended changes he thinks he has observed, and which he attributes to physical revolutions.^b M. Beautems Beaupré, in the atlas of D'Entrecasteaux, has gone farther: he has given six views of the pretended isle of Amsterdam, which is really only that of Saint Paul, proved by comparing the designs found in the work of Valentyn. At the moment that the French were passing the island, the volcano was emitting both flame and smoke; they were, however, able to ascertain the form of every part of it, not excepting the isolated rock, which, according to Barrow, is of basalt. M. Rossel, compiler of the voyage, discusses its geographical position with precision, without having perceived the confusion of names which is proved by the latitude in which he places the island.^c

Ten degrees farther south, *Kerguelen's Land*, called *Island of Desolation* by Captain Cook, presents its barren rocks, surrounded by masses of ice, and inhabited by seals. The almost total want of vegetation on this considerable island cannot be occasioned solely by rigour of climate; it is owing to its distance from any territory sufficiently extensive to develop within itself the power of vegetation. Many excellent harbours might render this station useful to enterprising whalers. More to the west, the *Marion Isles*, and those of *Prince Edward*, in like manner present only the frightful nakedness of a rock devoid of vegetation.

We have now terminated the description of the Eastern African Islands; for those marked in several charts under the names of *Dina* and *Marseveen*, do not exist. No account or description of these islands can be found. It is not known at what epoch, or by whom they were discovered; no one has seen them. In later times, they have

escaped the researches of Marion and Cook. It has been said, that the Dutch at the Cape are acquainted with them, and even go there in search of wood; but neither Valentyn, nor Mentzel, in their prolix accounts of the Cape, make mention of them. What motive could the Dutch have in concealing from Europe the situation of these two insignificant islands, since they have given the greatest publicity to all their other discoveries, far more important in themselves, and which might have indeed have excited the envy of powers jealous of their commerce? It is more natural to suppose, with M. Buache, that these isles have crept into our charts, like many others that for a long time occupied, and do still in part occupy, a place which sound criticism does not allow them.

In examining an ancient chart of *Nicolas Carnerio*, a Genoese, necessarily made a short time after the first voyages of Europeans to the Indies and America, this philosopher was struck with the name of *Dina Margabin*, applied to an island situated in the same tract of the ocean now assigned to the isles Dina and Marseveen.^d Carnerio's chart represents with sufficient minuteness and precision the western and southern coasts of Africa, as far as Meliada; but the rest is traced in an uncertain and slovenly manner. The island of Madagascar extends there from 30° to 40° of south latitude; the Comora Isles, which may be recognized by the names of *Jana* and *Calenzuan*, are found 18° to the east of the northern point of Madagascar. Three other islands, named *Dina Margabin*, *Dina Moraze*, and *Dina Arobi*, and placed to the east of the southern point of Madagascar, in the same latitude assigned to the two lost islands, can be no other than the Isles of Bourbon, Rodriguez, and France, or Mauritius. Without enumerating all the reasons militating in favour of this opinion, we shall merely observe here that *Dina Margabin*, the most western, the nearest to Madagascar and the largest, has a golden colouring that distinguishes it from the rest as the principal of the group. The name of *Margabin* is very analogous to the Arabic word *Mogrebin*, which signifies western; as for the word *dina*, joined to each of the three names, this can only be a generic name, very like, at least in the manuscripts, to the Arabic word *diva*, which signifies an island, and which is found in the names of Diu, Maldives, &c. Thus, *Dina Marseveen* is only one and the same name, corrupted and afterwards divided into two by superficial navigators or geographers, who perhaps knew the existence of several islands in the environs of Dina Margabin, forgetting at the same time that they were more generally designated by the name of the principal among them. The difference of their position in Carnerio's chart, from the real situation of the Mascarenha isles, proves nothing against their identity, since the great island of Madagascar has incontestably served to determine their position, particularly at a period when these seas were known only from the accounts of the Arabians, with whom the Portuguese communicated on the south-east coast of Africa. The would-be geographers or copiers of charts, on observing the Mascarenha isles more exactly marked, and called by other names, thought it right to retain or replace a little more to the west the names of Dina Margabin, Marseveen, or even Dina and Marseveen, in order that no void space might be left.

^a Van Vlaming, in Valentyn, Oostindien, part III. or v. IV. sect. 2. p. 68—70.

^b Voyage to Cochinchina, &c.

^c D'Entrecasteaux, Voyage, t. I. p. 44.

^d Buache, Mem. sur Dina et Marseveen, Mémoires de l'Institut, Sciences Morales et Politiques, t. IV. p. 367.

The *Ephemerides of Coimbra, of 1807*, place the island of *Denia* or *Dina*, in $40^{\circ} 32'$ South, and in $18^{\circ} 49' 7''$ East of Paris.

We have carefully endeavoured to discover if any thing were in opposition to the adoption of this ingenious hypothesis. One fact only has presented itself; it is the existence of a vessel belonging to Dutch India, bearing the precise name of *Marseveen*, during the very period that these

isles first began to appear upon the charts.^a This circumstance, however trifling it may appear, might render farther researches into the Dutch archives necessary, before admitting M. Buache's hypothesis. Even supposing, however, that the island of Marseveen exists, it is probably identical with Gough's, or Gonzalo-Alvarez island, situated much farther towards the west.

^a Valentyn, Oostindien, t. I. p. 236. List of Vessels.

BOOK LXXIV.

AFRICA.

Continuation of the Description of Africa.—The Western African Islands.

To the west of the Cape of Good Hope extends the southern Atlantic Ocean, which ought perhaps to be called the *African Ocean*, since the epithet *Ethiopian* gives a false idea of it. South America bounds it on the west; Cape Saint Roque and Cape Taguin on the north-west. The *Gulf of Guinea* forms its farthest projection to the north-east. Almost without islands, this part of the ocean is influenced very regularly by the trade-winds, and the general current, which cause both the air and waters to move towards the west. The trade wind, however, ceases to blow at one or two degrees north of the equator, where it is succeeded by west and south-west winds, which retain vessels in the Gulf of Guinea, to the great dread of navigators.

The first island to the west of the Cape of Good Hope is that of *Circumcision*, discovered in 1739 by Captain Bouvet, and again found by two English vessels in 1808. Since Captain Cook's fruitless search, it had been supposed that Captain Bouvet had only seen a mass of ice.^a Under a milder climate are found *Diego Alvarez* and *Gough's* islands, apparently the same as *Gonzalo Alvarez*. This last is 4380 feet high; fine cascades water a soil covered with green turf, where several shrubs grow among the rocks.^b The *Tristan d'Acunha* islands are better known; they are four in number. The principal island shows its round head^c at a distance, 8326 feet in height, clothed with verdure half way up, and covered with snow during many months of the year. Shrubs of the genus *Phyllica* shade the limpid streams with their thick foliage.^d An American has taken possession of these isles, and has successfully planted cotton and corn; he purposes forming an establishment for the refreshment of ships on their way to the Indies.

An immense aquatic solitude extends from these islands to that of Saint Helena. An imperceptible point in the Atlantic Ocean, this rock is nine leagues in its greatest circumference. Steep shores form for it a natural and nearly impregnable rampart. It is divided into two unequal parts by a chain of mountains intersected by deep valleys. Diana's Peak, at the eastern extremity of the great chain, is 2692 feet above the level of the sea. Basalt constitutes the base of the island; but a great quantity of lavas and scorïæ attest its volcanic nature. There is lime of excellent quality, stones that admit of a very fine polish, and

clays of different colours. Gold and copper were supposed to exist, as well as mines of iron, which the want of combustible matter will not prevent their working, if it be true that beds of pit-coal exist. The soil, generally rich and deep, contains many saline particles. The coast is very barren in appearance, but a rich verdure covers the interior of the island, even to the tops of the mountains, from which springs of wholesome and clear water exude on every side. The *sandy valley*^e is not the only picturesque scene that has employed the pencil of the artist. Besides about ten indigenous trees or shrubs, still imperfectly known, among which are three species of gum-trees, the finest flowers of Europe and Africa may be seen displaying their beautiful colours by the side of antiscorbutic plants, extolled by mariners. The cultivation of almost all the fruits and commodities of Europe and Asia succeeds here. The pasturage feeds a great many oxen, sheep and goats, a resource highly valued by navigators.

It has a population of about two thousand persons, of which five hundred are whites, and 1500 are negroes, the garrison not included. Jamestown, on the north-west coast, is the only town and port of Saint Helena. The approaches are defended by good fortifications. It being the ordinary place of refreshment for ships returning from India, it is changed once during the year, from an agreeable solitude to a noisy market place. At the time of its discovery in 1502, the interior was only one large forest, and the gum-tree even grew on the edges of the rocks suspended over the sea. Fernando Lopez, a Portuguese renegade, who in 1513 obtained the favour of living here, in exile, first stored it with goats, hogs, pintadoes, turkeys, partridges, pheasants, peacocks, and other species of birds; he planted roots, garden vegetables, and fruit-trees. The Portuguese having at last deserted it for their establishments on the south-east coast of Africa, it was taken possession of by the Dutch, and abandoned by them in 1651 for the Cape of Good Hope. The English afterwards established themselves here. From that time, until the period of their getting possession in their turn of the Cape of Good Hope, it was the only resting place possessed by the English East India Company for the refreshment of their ships in the Atlantic Ocean. At the present day, associated with the destinies of the earth, this small island, which, during life, was the prison, is still the sole repository of the ashes of him whose genius, but a little before, shook the foundations of the civilized world.^f

^a Oriental Navigator, London, 1816. See the Table of Positions following.

^b Heywood, quoted in the Orient. Navig. p. 18.

^c "Piton," peak. Near the centre of the island is a conical mountain, like the Peak of Teneriffe.—P.

^d Du Petit-Thouars, Description des îles Tristan-d'Acunha, pamphlet in 8vo. with a chart; Heywood; Patten, &c.

^e Sandy Bay.

^f Brooke's Description of the island of St. Helena; London, 1802. French trans. by M. Cohen, with Notes by M. Malte-Brun. Forster, Valentia, &c.

Ascension Island, a rock without water, and nearly without vegetation, is an attraction to navigators from the immense quantity of turtles that come to repose on its shores, which are covered with lavas and volcanic scoriæ.

At the bottom of the Gulf of Guinea, a chain of islands appears to indicate the continuation of some chain of mountains of the neighbouring continent.

The island of *Fernando Po*, or more properly *Fernaõ do Po*, situated twelve leagues to the south of Baxasey Point, derives its name from a gentleman in the service of King Alphonso the Fifth of Portugal, who discovered it in 1472, and called it *Formosa*, or beautiful island. It is eight leagues long, from north-east to south-west, and about three wide. It is represented as very high, woody, frequently covered with clouds, very fertile in sugar-canes, cotton, tobacco, manioc, sweet potatoes, fruits, and other commodities bartered here for iron bars and wire. Portugal, after having previously abandoned it, ceded it in 1778 to Spain; its population is a mixture of mulattoes and negroes, who have not a very good character. Dalzel says, that the Spaniards have been driven by the natives from the fort they attempted to construct during the American war.^a It appears, however, that their colony is in a flourishing state, as Wadstrom relates that all the vessels of Camerones, Del-Rey, and Calabar, constantly find here an ample store of all kinds of provisions.^b The ordinary anchorage, where ships take in wood and water, is only an open road on the northern side.

Prince's Island, or *Ilha do Principe*, twenty-eight leagues distant to the S. S. W. of Fernando Po, is nearly eight leagues long, and six broad. It is the ordinary rendezvous of the Guineamen, the harbour being considered the best in this group of islands. The air is healthy and agreeable; the water excellent. Many fresh and clear streams descend to the coast; a small lake occupies the summit of a high mountain in the middle of the island. It abounds in wood, cocoa-nuts, oranges, lemons, figs, sweet potatoes, yams, rice, millet, maize, manioc, domestic animals, and poultry. The city, built near the north-east point, contains two hundred houses of one story, two churches, and a convent;^c there are about fifty whites, the remaining population consists of mulattoes and free negroes, who maintain a great many slaves. A small fort, guarded by Portuguese exiles, defends the entrance of the harbour.

At twenty leagues distance south-west of Prince's Island, under the equator, is the Island of Saint Thomas: it is twelve leagues in length, and seven in its greatest breadth, with fifteen thousand inhabitants, the greater part negroes or mulattoes.^d The northern part is composed of high mountains, terminating in peaks, always enveloped in clouds, which, at a distance, look like smoke, and have been taken by voyagers for perpetual snow. Moreover, the great and continual heat of the climate raises in the valleys thick and fetid fogs, that frequently envelope the whole island, and become, particularly during the months of December, January, and February, the cause of numerous diseases. In July and August, the south-east and south-west winds revive the debilitated habits of Euro-

peans, but they are very pernicious to the natives. Nevertheless, it is asserted that the people of colour, and the blacks, often live to the age of an hundred or more, while the white inhabitants scarcely attain fifty or sixty years.^e However it may be, the astonishing fertility of the soil makes them brave every inconvenience of the climate. The produce in raw sugar may be estimated at three millions of pounds weight in the year. The vine has been cultivated with success. Maize, millet, manioc, sweet potatoes, yams, cocoa-nuts, bananas, oranges, lemons, dates, and melons, abound in every part. Cassava is eaten instead of bread. The cinnamon tree has been recently discovered there.^f The flesh of the sheep and goats is excellent; but the oxen are smaller, and less fat than in Europe. Hogs are bred in considerable numbers, and fattened with the sugar cane, ground in mills. Poultry is very productive, and the rivers swarm with fish. Saint Thomas, or Panoasan,^g the capital, has 500 houses, principally of wood, three or four churches, and two convents; it is defended by a fort built upon a tongue of land. The road serves as a place of refreshment to vessels that have been prevented reaching Prince's Island, on account of contrary winds.^h All kinds of provisions can be procured for old clothes and old linen. The island of Saint Thomas is under the command of a mulatto governor; and its administration is conducted by a council of twelve natives. Every thing breathes pleasure and luxury. The slaves do not feel the effects of slavery, and scarcely work two or three days in the week. Black priests perform the duty of the churches or chapels dispersed about the island, in number eight or nine.ⁱ The greater number of them cannot even read; but they have each two or three concubines. Some white or mulatto capuchins, living in a small convent, are not more rigid in their conduct. Bishops have been sent at different periods by the court of Lisbon to re-establish religious discipline, but they generally died in a few days.

Among the islands in the vicinity of Saint Thomas, that of *Rolas* is about two leagues in length.

Annabona or *Bonanno* island,^k discovered by the Portuguese on the first day of the year 1473, has been ceded to Spain with that of Fernando-Po. It is about twenty-nine leagues south-west of the island of Rolas,^l and may be about seven or eight leagues in circumference.^m The land is high, the climate healthy, and it is intersected by pleasant valleys, bordered by mountains clothed with a rich verdure, and covered with mists not unfavourable to health. Delicious and very large oranges, cotton, tamarinds, pomegranates, and all the commodities of the three preceding islands, may be procured in return for salt and old clothes. The population is from eight to nine hundred inhabitants, who are the descendants of slaves thrown upon this island during a voyage to Brasil. Dalzel states, that at the moment of taking possession, the Spaniards were repulsed by the natives, already ill disposed towards the Portuguese. The only anchorage is on the northern side, and is very indifferent.

We shall not inquire concerning *Saint Matthew's* Island, the situation of which no modern navigator has been able

^a Dalzel, Nautical Instructions for the Coast of Africa.

^b Wadstrom, *Essai sur les Colonies*, p. 37.

^c Marchais, tom. III. p. 30.

^d Pommegeorge, *Descript. de la Nigritie*, p. 249.

^e Marchais, III. 3. ^f Wadstrom, p. 241.

^g Perhaps Panoasan is merely a corruption of *Povoação*, which signifies a town, in Portuguese.

^h Rømer, p. 280; Bosman, p. 442.

ⁱ Ramsay's *Inquiry*, &c. p. 38.

^k "Annobon," Annaboa, Annabon. The first of these is the correct orthography. Port. *anno*, year, and *bon*, good.—P.

^l A small island to the south of St. Thomas.—P.

^m Bruns and Dalzel.

to find. It is probably that of Annabona, placed in a false longitude. The question, however, must remain undecided.

On leaving the Gulf of Guinea, and bearing up direct to the Cape-Verd Islands, along the meridians of these very islands, that part of the ocean must be traversed, so fatal to navigators, where long calms detain the ships under a sky charged with electric clouds, pouring down by turns torrents of rain and of fire. This *sea of thunder*, being a focus of mortal diseases, is avoided as much as possible, both in approaching the coasts of Africa, and in seeking those of America.

The archipelago of the *Cape-Verd Islands*, belonging to the Portuguese, comprehends ten islands, besides islets and rocks. The principal one is *San Iago*.^a At first sight the eye is offended by the appearance of barrenness; it looks as if it had just suffered from a great fire. Naked rocks, heaped in disorder one over the other, divided and rent by fantastic fractures, rise from the bottom of the sea, and extend themselves aloft to the clouds.^b On shore, the deplorable state of the inhabitants grieves the soul: their colour is so deep, that they hardly appear to have the least mixture of European blood circulating in their veins, even though they themselves boast of being Portuguese.^c The clergy is composed of men of colour, and even of negroes. The general misery arises, partly from the bad government, and partly from the droughts that sometimes visit the island during several successive years. The principal production is salt, the exclusive sale of which for Brasil is the profit of the government. Along the hillocks, and in the valleys, where the dew and moisture of the sea-air support vegetation, cocoa trees, banana trees, and papaws, covered with an eternal verdure, display their wholesome fruits. The tamarind and the *Adansonia*, afford a considerable shade. Nothing can equal the beauty of the oranges and lemons of the country. The guavas, figs, sweet potatoes, pumpkins, and water-melons, are of an excellent quality. The vine and sugar-cane prosper. Indigo and cotton plants, although left to themselves, thrive exceedingly. The silky down of the *asclepias*, which is seen flowering in every direction, serves to stuff pillows and mattresses. Rice and maize constitute the ordinary food of the people; but when the periodical rains fail, the soil, calcined by a devouring sun, resists the spade, and the poor are in danger of starving; for Fahrenheit's thermometer seldom descends below 80°, and often rises above 90°.

The mountains of the island are filled with goats and small bullocks. The peasants hunt Guinea fowls, wood pigeons, turtle doves, and other wild fowls. The only tolerable sea fish is a species of mullet; but the land-tortoises, that swarm in the valleys, furnish a delicious food. Good water for drinking is scarce. It would be wrong, however, to judge of the island from the state of the town of *Puerto Praya*, where navigators land. It consists of two rows of low rustic houses, intermixed with huts of a still more miserable appearance. A redoubt, fallen into ruins, affords a weak protection to the anchorage. But *San Iago*, the ancient capital, and *Ribeira Grande*, the residence of the authorities, have a better appearance, and even contain some tolerably large buildings.

The island of *Mayo*, rich in cattle and cotton, the island of *Fuego*, (or of Fire,) which, notwithstanding its very

active volcano, produces good fruits, and the island of *Brava*, or *Saint John*, which produces excellent wine and saltpetre, form a chain, with that of *San-Iago*, in a direction from east to west.

The island of *Bona-Vista*, (Bonne Vue) remarkable for a less elevated soil, very fertile in cotton and indigo, forms, with Salt Island, or *Ilha do Sal*, a line north and south.

The four remaining islands form part of a chain in a direction from S. E. to N. W., and succeed each other in the following order. *St. Nicholas*, one of the largest, and best governed of the whole archipelago, contains a town of the same name where very good cotton stuffs are manufactured. The soil of the island is hilly and fertile in fruits, but they only make a sour wine. *Santa Lucia*, high and wooded, has only brackish water. *San Vincente* is uninhabited, and like the former, abounds in wood and turtles. *San-Antonio*, the mountains of which are said to equal in height the Peak of Teneriffe, produces in its well-watered valleys, the indigo plant, the dragon tree, and orange and lemon trees.

In spite of the droughts to which these islands are subject, their natural produce in cotton, indigo, fruits, salt, goat skins, and turtle oil, might give them a considerable value under a more intelligent government. Their actual population is estimated at forty-two thousand souls.

To the north of the Cape Verd Islands, the waters of the ocean disappear under a thick bed of sea-weed, which, like a floating meadow, extends as far as the twenty-fifth parallel, and occupies a space of 60,000 square leagues; ships disengage themselves from it with difficulty. Other masses of sea-weed are also seen in parts of the sea more to the north-west, nearly under the meridian of *Cuervo*, and *Flores*, islands of the Azores, between the twenty-third and thirty-fifth northern parallels. The ancients were acquainted with these parts of the sea, which exhibited the appearance of meadows. "Some Phœnician ships," says Aristotle,^d "driven by an east wind, arrived, after thirty days sail, in a situation where the sea was covered with reeds and sea-weed." Some persons have conceived that this abundance of sea-weed, was a phenomenon proving the ancient existence of an Atlantis since swallowed up. It appears, that these facts were forgotten in the time of Christopher Columbus, for his companions were seized with terror on seeing this part of the sea, so abundant in plants, which the Portuguese called *Mar de Sargasso*.^e The sea, covered with sea-weed, in the environs of the Cape Verd Islands, is also described in the *Periplus of Scylax*.^f "The sea beyond Cerne is no longer navigable, on account of its shallowness, swamps, and sea-weed. The sea-weed is a cubit in thickness, and its superior extremity is pointed and sharp."

These passages of the ancients appear to demonstrate that their navigations terminated only at Cape Blanco, as we have already admitted, and not at Cape Boyador, as the learned M. Gosselin supposes. For the situation of the *Mar de Sargasso* could not have changed considerably, seeing that it depends on the winds and currents, eternal agents of immutable nature. At the most, the limits of these banks of marine plants may have formerly been a little less extensive.

The celebrated archipelago of the *Canary Islands*, con

^a St. Jago.

^b Wurmb, *Voyage aux Indes*, p. 58.

^c Barrow's *Voyage to Cochinchina*.

^d Aristot. de *Mirabilibus*, p. 1157; ed. Duval; Paris.

^e Sedge-sea; or sea abounding in Fuci.—P.

^f Ed. Gronovii, p. 126.

ducts us towards the empire of civilization. It forms almost a part of Europe. What has not been written on the soft temperature of these islands, and on the pleasant landscapes contained within the compass of their rocky shores!

Lancerota commences the chain on the east. Stripped of its forests, it experiences, like the neighbouring continent, most destructive droughts; camels are, nevertheless, maintained in great numbers; and corn, barley, and pulse, are exported. The vine grows vigorously among the volcanic ashes.^a *Teguisa* is its capital. This island possesses the two best ports of the archipelago; it was called by the natives *Titeroygotou*, and was much more advanced in civilization than the islands situated more to the west. The inhabitants lived in houses built of free-stone, at the time when the Guanches of Teneriffe were lodged in caverns. Here was found the singular custom also existing in Tibet, which allows a woman to have several husbands.^b These traits of manners appear to lend additional weight to our opinion, according to which the islands of *Lancerota* and *Forteventura* were those only known by the ancient civilized world.

Forteventura, the indigenous name of which was *Erbania*, has nearly the same soil as *Lancerota*. The inhabitants are furnished with water almost entirely from cisterns. Nevertheless, in good years, they export both corn and barley. They also furnish barilla, cotton, and wine of a middling quality. *Betancuria*, the principal town, retains the name of the first modern conqueror of the Canaries.

The four islands of *Great Canary*, *Teneriffe*, *Gomera*, and *Palma*, compose a chain of very high mountains, in a direction from east to west. *Canary*, having a very fertile soil, watered by clear streams, and enjoying a moderate temperature, would be the most important of this archipelago if it had a better harbour, and if one hundred and fifty estates formed into *majorats* did not remain uncultivated.^c It produces maize, wheat, barley, wine, sugar much esteemed, olives, and silk. The city of *Las Palmas*, is the seat of the ecclesiastical authorities. The village of *Gualdar* consists of grottos, cut in the rocks by the ancient natives. On mount *Daremas*, the perfume of the groves, the murmuring of the waters, and the song of the canary birds, recal to the mind every thing written by the poets concerning the Fortunate Isles.

Teneriffe, the largest and most populous of these islands, had among the natives the name of *Chinerife*. The basaltic mountains of which its mass is formed, are in general six hundred toises above the level of the sea. The southern part includes the famous *Peak of Teyde*, or more accurately of *Echeyde*, that is, of Hell. It also bore among the Guanches the name of *Aya-Dyrma*; it is perhaps of all the volcanic mountains, that which has most occupied the attention of the moderns. Nevertheless, its elevation has only lately been determined with precision, which is nineteen hundred and four toises, or eleven thousand four hundred and twenty-four feet.^{d,e} Two thirds of the cone formed by this mountain, are covered with a fine

vegetation, in the middle of which few modern lavas are seen; one may traverse groves of bay trees, often surrounded by clouds. After having passed the region of clouds, the dry and desert soil begins to be covered with pumice stone, and obsidian or vitreous lava. This barren region occupies a space of ten square leagues of surface.^f A vast and deep reservoir contains water, which is frozen in the month of September. The volcanic cone, properly so called, has so steep a declivity, that it is only possible to mount it by following an ancient torrent of lava. The crater occasionally emits smoke, and the surrounding surface is in many places sufficiently heated to burn the shoes of travellers in walking. This volcano appears, however, to act more from the sides than summit: enormous lateral eruptions have attested, within twenty years, the continued violence of subterranean fire. Many appearances prove that there are considerable collections of water in the interior caverns of the Peak, which exhale in vapours through different spiracles; the two most remarkable bear the name of *narines*.

At the foot of this ignivomous mountain is expanded one of the finest countries of the world. The hills, cultivated in many places with as much attention as a garden, produce the most delicious fruits, and the highest flavoured wines. Teneriffe wine is of two kinds, Malmsey and *Yidonia*;^g twenty thousand pipes are made in abundant years.^h The flora of Teneriffe may give an idea of that of all the Canaries. The banana-tree, the papaw, and the magnificent *Poinciana*, adorn the gardens; the trichomanes of the Canaries, a handsome fern, covers the walls.ⁱ The cactus, cacalia, and euphorbia, recal to the mind by their stiff and pointed forms the vegetable aspect of Africa. The sugar of Teneriffe is from a cane^k peculiar to this archipelago. The orchil of this island is esteemed. Every traveller has admired a *Pterocarpus*, (*Sanguis draconis*,)^l of gigantic dimensions, which is preserved in a garden of the charming town of *Orotava*. "In June, 1799," says M. de Humboldt, "when we climbed the Peak of Teneriffe, we found that this enormous vegetable measured forty-five feet in circumference a little above the root."^m Sir G. Staunton asserts, that at the height of ten feet, it is twelve feet in diameter. Tradition reports that this dragon tree was revered by the Guanches, like the elm of Ephesus by the Greeks; and that in 1402, at the time of the first expedition of Betancour, it was as large and as hollow as at present. Considering that the dragon-tree, in every situation, is of slow growth, we may conclude that that of *Orotava* is extremely old. It appears, with reason, singular to M. Humboldt, that the dragon-tree has been cultivated from the earliest times in the Canary islands, as well as in those of Madeira and Porto-Santo, although it came originally from India. This fact appears to contradict the assertion of those who represent the Guanches as a race of men altogether isolated, and having had no connexion with the other people of Asia and Africa.

The towns of Teneriffe, the inns of navigators, have been twenty times described with more precision than most

^a Tessier, *Etat de l'agriculture aux îles Canaries*, Mémoires de l'Institut, sciences phys. an 6. t. I.

^b Viera de Clavijo, *Noticias de la Historia de las islas Canarias*, t. I. p. 150. 171, &c.

^c *Viajero universal*, de P. Estala, t. XI. p. 207. Bory de Saint-Vincent, *Essai sur les îles Fortunées*, t. V.

^d According to Borda, Pingré, and Cordier. The ancient estimates raise it higher. According to Cassini, it is 2634 toises; to Heberden,

2409; to Feuillée, 2213; to Bouguer, 2062. A Spaniard, D. Manuel Hernandez, brings it down to 1742. These are in French measure.

^e Fr. measure.

^f A. de Humboldt, *Voyage*; *Relation Historique*, t. I. liv. I. ch. 2.

^g "*Makoisie* (Canary-sack) and *vidogne*."

^h Ledru, *Voyage à Teneriffe*, &c. t. I. p. 126.

ⁱ Labillardière, *Voyage*, l. 8—21.

^k *Saccharum Teneriffæ*. ^l *Dracæna*.—Humboldt.

^m *Tableau de la Nature*, l. p. 109; trad. Franç. de M. Eyriès.

European countries.^a *Santa Cruz*, the principal, containing 10,000 inhabitants, is the seat of government of the Canaries. *Laguna*, the ancient capital, boasts its delicious climate, and *Orotava* rivals the most beautiful situations in the world. In the botanic garden, established near this town, the plants of the old and new world internix their foliage.

Gomera, a small, very fertile, and well watered island, can almost maintain itself. The mountains of granite and micaceous schistus^b are covered with forests, and intersected by beautiful valleys, in which the laurel, the date, the lemon, the fig, the walnut, and mulberry flourish. Garden vegetables, pulse, corn, fruits, potatoes, yams, wine, honey, oxen and sheep, mules, poultry, and game, are found in abundance.^c

Saint Sebastian, the chief town, has a good port, where Christopher Columbus refitted his ships in 1492, before proceeding to the discovery of a new world. It has woollen manufactories and a sugar-work.

The soil of *Palma* is more elevated than that of Teneriffe, hilly, intersected by ravines, and filled with caverns: volcanic, and very barren in its southern part, it is generally fertile and populous only on its coasts, where it produces vegetables, good wine, a great deal of sugar, used principally in preserving fruits, in which the island abounds, and a great quantity of almonds. The produce in corn is not sufficient for the consumption of its inhabitants. In years of scarcity, the people live on the roots of fern, as at Gomera. According to Clavijo, there are neither deer, partridges, nor hares; but rabbits are very numerous, and destroy the trunks of young trees on the sides of the mountains: the regions of clouds only is richly wooded, and gives the island, seen at a distance, the appearance of a forest. A sort of aloes wood is found here.^d *Santa Cruz de las Palmas*, the capital, has a good port.

Hierro, or *Ferro*, the most western of the seven Canaries, has a volcanic soil, and little fertile. After having climbed a declivity of more than a league, that rises from the sea shore, we come to flowery fields, where numberless bees collect honey. *Valverde* is the chief town of this island. It has few springs; but the moisture of the soil is maintained by frequent fogs, which has induced the Canarians to surname it *Black Land*. Little corn is cultivated; much orchil is collected; and from 80 to 100,000 reals of brandy is made here annually, extracted from wine and figs.^e The pastures feed a great number of cattle, the flesh of which is very good, and the forests contain stags and roe-bucks. *The holy tree*,^f of Ferro Island, an object of so many fabulous tales, appears to have been a *Laurus indica*; it did not furnish the whole island with water, but the vapours condensed by its leaves afforded a considerable quantity, which, in times of drought, was a real resource. This tree, preserved with care, was destroyed in 1612 by a dreadful hurricane. Its existence, in vain called in question by the celebrated critic *Feyjoo*, has been juridically verified.^g

The observations, that would have rendered this topo-

graphy of the Canaries too dry, have been condensed in the following table.

Names of the islands.	Surface in marine square leagues. h	Population in 1797. i	Produce of wheat and sugar in arrobas. k
Teneriffe	73	81,000	89,556
Forteventura	63	12,000	150,000
Canary	60	58,000	70,453
Palma	27	25,000	44,350
Lancerota	26	13,000	155,461
Gomera	14	8,200	13,770
Ferro	7	5,700	7,000

270 sq. leagues. 202,900 inhab. 530,790 fan

The inhabitants of the Canaries, known by the name of *Islenos*, (the Islanders,) emigrate in great numbers to the coast of Caraccas, and to the Philippines. Quick and ingenious, like the Andalusians, they are fond of instruction, and labour like the Biscayans; they pronounce the Spanish language with a peculiar sweetness.¹ Philosophers, like Clavijo,—poets, such as Yriarte,—have adorned this people, who still reckon among them some estimable learned men, among whom good French books are very well known. The Canaries, the Cape, and the Isle of France, constitute in Africa almost the whole domain of civilization. The feudal rights, the majorats,^m and the great extent of uncultivated domain lands, arrest the progress of cultivation and the public prosperity in the Canaries.

What has become of the *Guanches*, whose mummies alone, buried in caverns, have escaped destruction? In the 15th century, some commercial nations, especially the Spaniards and Portuguese, went in search of slaves to the Canary Islands, as they afterwards did to the coast of Guinea. Under the Guanches, the Archipelago of the Canaries was divided into several small states, hostile to each other, and the cupidity of Europeans kept up their intestine wars, for the sake of purchasing the prisoners; many of them preferred death to slavery, and killed themselves and their children. It is in this manner that the population of the Canaries had suffered considerably by the commerce of slaves, by the rapine of pirates, and particularly by a continued slaughter, at the time that Alonzo de Lugo completed the conquest of them. Such of the Guanches as remained, perished in 1494, in the famous plague called *modorra*, which was attributed to the number of dead bodies left by the Spaniards exposed to the air after the battle of Laguna. This fine nation of Guanches was almost extinct at the commencement of the seventeenth century; a few old men only were found at Candelaria and Guimar. At this time, there does not exist throughout the Archipelago one native of the *pure race*. Some Canarian families boast of their relationship to the last shepherd king of Guimar; but these pretensions do not rest on very solid foundations; they are occasionally renewed whenever a man more tawny than his neighbours is anxious to solicit the rank of officer in the service of the king of Spain.ⁿ

The Guanches, celebrated for their tall figure, and often conspicuous for fine fair hair, have furnished excellent subjects for the pen of historians discontented with the age; and a short time after the discovery of America, they were fond

^a Bory de St. Vincent, *Essai sur les îles Fortunées*, 230. Ledru, I. 37; Macartney; Barrow; Milbert, &c.

^b Broussonet, quoted by A. de Humboldt, *Voyage*, I. 168.

^c According to Milbert, t. I. p. 96. it is the only island of the Canaries in which there are stags and roebucks, which Ledru has transferred to Ferro.

^d *Viagero Universal*, XI. 211.

^e Ledru, tom. I. p. 40.

^f Fountain tree.

VOL. II.—NOS. 71 & 72.

^g *Viagero Universal*, de P. Estala, tom. XI. p. 139—143.

^h Measured after the charts of Borda and Varela, by M. Oltmans.

ⁱ Note communicated by M. Marchena.

^k Official Reports quoted by Ledru. The fanega is 100 pounds weight.

^l *Viagero Universal*, t. XI. p. 227.

^m Entailments.

ⁿ A. de Humboldt, *Voyage*, tom. I. p. 190.

of celebrating the generous virtues of the Guanches, as they have in our time extolled the innocent mildness of the islanders of Otaheite, or as Tactius has traced his seducing account of the Germans. In fact, if the Guanches offer some physical analogy with the colossal arborigines of ancient Germany, they appear to have resembled, in other respects, the Otaheitians. We see them both oppressed by the yoke of a feudal government. Among the Guanches, this institution, which facilitates and perpetuates wars, was sanctioned by religion. The priests said to the people—"The great spirit, *Achamas*, first created the nobles, the *Achimeceys*,^a to whom he gave all the goats existing in the world. He afterwards created the common people, the *Achicurnas*; this younger race had the insolence also to demand goats, but the Supreme Being answered that the people were designed to serve the nobles, and that they had no occasion for any property." The *faycas*, or great priest, exercised the right of ennobling; and a law provided, that every Achimece who should disgrace himself by milking a goat with his own hands, should lose his titles of nobility. This law does not savour much of the simplicity of manners of the Homeric age.

The mummies of this nation, seen in the cabinets of Europe, are brought from sepulchral caverns cut in the rock on the eastern declivity of the Peak of Teneriffe. The ancient Guanches, after having deposited in these catacombs a sufficient number of bodies, took the precaution of shutting the entrance; and it is asserted that the knowledge of these burial places was a secret transmitted exclusively to certain families.^b These mummies, at present very rare in the Canaries themselves, are in so extraordinary a state of dryness, that the entire body, covered with its integuments, often does not weigh more than six or seven pounds, that is, a third less than the skeleton of an individual of the same size, recently cleared of its muscles. The cranium, in its form, has some resemblance to that of the white race of the ancient Egyptians: and the incisor teeth are blunted among the Guanches, as in the mummies found on the borders of the Nile. But this form of teeth is due to art alone; and, on a careful examination of the physiognomy of the ancient Canarians, skilful anatomists^c have observed in the zygomatic bones, and in the lower jaw, very sensible differences from the Egyptian mummies. On opening those of the Guanches, remains of aromatic plants are found, among which is constantly observed the *Chenopodium ambrosioides*: the bodies are often ornamented with fillets, to which are suspended small disks of baked earth, that appear to have been used as numerical signs, and resemble the *quippos* of the Peruvians, Mexicans, and Chinese.^d

The sole remains likely to throw some light on the origin of the Guanches, is their language; but unfortunately, not more than one hundred and fifty words remain, many of which express the same objects, according to the dialect of different islands. Besides these words, many precious

fragments exist in the denomination of a great number of hamlets, hills, and valleys.

It was long thought that the language of the Guanches did not present any analogy with the living languages; but since the travels of Hornemann; and the ingenious researches of MM. Marsden and Venture, have fixed the attention of learned men on the *Berbers* or *Shillooks*, who occupy an immense tract of land in Northern Africa, many Guanche words have been discovered, having roots in common with the *shilla* and *gebali* dialects.^e

If this analogy does not prove a common origin, it at least points out some ancient connexion between the Guanches and the Berbers, in whom they find restored the Numidians, Getulians, and Garamantes.

To the west of the Canary Islands, a tradition much propagated, but very obscure, places an island called *Saint Brandon*, or *Saint Borondon*. It is even pretended that it was visible from the shores of the island of Palma. A holy bishop had conducted thither a colony of Christians, at the time of the irruption of the Moors into Spain. These traditions may be the consequence of those optical illusions, by which the image of a real coast is repeated in the clouds. Perhaps also some sub-marine volcano, existing to the west of the Canaries, alternately causes the sides of its crater to appear and disappear.

Passing by the group of rocks called the *Salvages*, or *Savage Isles*, we arrive, after a sail of eighty marine leagues, at the Island of Madeira, which, with that of Porto-Santo, and some other desert islets, forms a distinct group. The Portuguese, who are masters of it, not long since gave to England the right of garrisoning it.^f

The soil of Madeira is mountainous, and rises on every side towards a chain of mountains, the summit of which is called *Pico Ruivo*, 5068 feet in height. On the summit is a cavity, called by the inhabitants *Val*, which appears to be the mouth of an ancient crater; and this is an idea confirmed by the lavas, for the most part light and of a bluish colour, dispersed in various directions, broken pieces of which the sea occasionally carries into the southern bay: but no pumice-stone is found; and there is no other trace in the island of any thing volcanic.^g It is, however, frequently subject to earthquakes. The constituent parts of the mountains are principally quartz and granular schistus; the fissures contain iron and ochre. M. Rathke, a Danish naturalist, brought from this island some native lead, enclosed in a soft lava. The coast is generally steep and difficult of access; the waves dash against it with violence.

The climate is soft, temperate, and very agreeable; there is an almost perpetual spring. During the cold season the thermometer is generally from 65° to 60° of Fahrenheit;^h it seldom falls to 55°. During summer it is generally between 66° and 76°. The hot winds blowing from the coast of Africa generally raise it from 90° to 95°. This high degree of heat soon gives way, and is succeeded by

^a Or Achamanacres. This word recalls to our memory the family of the Achemenides in Persia, and the Atamans, or chiefs of the Tartar hordes.

^b Milbert, t. I. p. 59.

^c Blumenbach, *Decas Cranior*, t. V. p. 7.

^d Viera y Clavijo, *Noticias*, t. I. p. 175.

^e The following are a few examples: *Tigo*, heaven; in Berber, *tigot*. *Aho*, milk; in B. *acho*. *Tomasen*, barley; in B. *tomzeen*. *Tumoganteen*, houses; in B. *tigameen*. *Carianas*, a basket; in B. *carian*. *Aenum*, water; in R. *anan*. See Mithridates, by Adelung and Vater, v. III. p. 60.

^f In 1801 and 1807.

^g According to the statements of the Hon. H. G. Bennet, the structure of the island is wholly volcanic. No sulphur, however, has been found. The rocks consist of four kinds of lavas, three of which invariably alternate with each other from below upwards, viz.: blue fine grained; compact; red earthy, friable; grayish, compact or cellular. The two latter are sometimes prismatic, particularly the grayish kind. The fourth kind forms a stratum by itself, brownish red, coarse grained, friable. There are also beds of ashes, pumice, and puzzolana.—P.

^h Comp. A. Humboldt's Isothermal table.

storms. The north-east wind prevails in the interior of the island. On the southern coast, there is a soft breeze from the east in the morning, during nine months of the year, which shifts to the west towards noon. In the evening and during the night it is succeeded by a land wind or by calms. The autumnal equinox brings with it strong southerly winds, which afterwards alternate till the end of the year with west winds, often stormy. The rains that fall between the month of November and the end of February are neither violent nor considerable; in the course of seven years, there were 462 rainy days.^a The natural moisture of the earth is maintained by the snow, which covers the highest mountains during a considerable part of the year, and by the clouds that envelope the tops during the day, and descend into the valleys at sun-set, disappearing again at day-break.

The island abounds in springs, and is watered by several small rivers descending from the mountains, and often forming in the ravines very picturesque cascades: water is conveyed from them over the stony soil of the gardens and vineyards, by means of dikes and ditches, under the inspection of particular officers.

The abundance of wood with which it was formerly covered gave it the name of *Madeira* (timber.) To facilitate its extirpation, it was set on fire, and continued to burn during a period of seven years. At the present time, the gardens and orchards display a great variety of fruit trees, European as well as tropical. But the forests, consisting chiefly of chesnut and walnut trees, are only found on the higher declivities of the mountains. The cedar, cypress, ironwood, and several species of laurel, are found here; among the latter may be enumerated the *Laurus indica*, affording the mahogany of Madeira. Higher up pines grow; but the highest points present only stunted shrubs and bramble bushes, that supply the want of wood for fuel. The fields are covered with broom, cytissus, myrtles, Indian figs, euphorbias, raspberry bushes, rose bushes, jasmins, water lemons,^b mock privets, and dragon-trees.^c

The sugar of Madeira was formerly much esteemed for its violet odour and aromatic flavour; at the present period, they prepare only a small quantity of molasses and syrup. The cultivation of the sugar-cane has given way altogether to that of the vine, which in fact constitutes the wealth of the island. The vineyards, for the watering of which much industry has been used, rise on the southern sides of the mountains, to the height of nearly two leagues. The grapes ripen in the shade of the vines, and are gathered when half dried. The precious Malmsey wine is produced from plants brought originally from Candia. According to Staunton, five hundred pipes are made annually. The other and most abundant kind, is known by the name of dry Madeira.^d The produce varies annually from fifteen to twenty-five thousand pipes; the exportation amounts to twelve or fifteen thousand. Five thousand five hundred are sent to England, five thousand five hundred to the East Indies, three thousand to the West Indies, and two thousand to the United States of America, where wine of an inferior quality is purchased.^e They have lately began to culti-

vate the olive tree, by order of government. The corn of the island, particularly wheat and barley, is excellent; it is a produce, however, only sufficient for four months consumption. Onions, gourds, Egyptian arum, yams, and chestnuts, are the principal articles of food. The gray canary-bird is indigenous. The bees of the valleys afford an excellent honey. In the sea are found trout; albacores, a species of tunny; and an abundance of other fish. Nevertheless, during lent, and meagre days, these islanders make use of cod imported in foreign vessels.

Madeira contained, in 1767, a population of sixty-four thousand souls. The church registers exhibit, during a period of eight years, an annual increase of nine hundred and seven persons, and state the proportion of deaths only at one in forty-nine.^f In our time, Staunton has estimated its total population at eighty thousand; and Barrow at ninety thousand. It is composed of a mixture of Portuguese, mulattoes, and negroes. The creoles are tawny, small in stature, dirty, and badly clothed. The people in general lead a miserable life, and strangers drink the greater part of the wine made in the island. The women, possessed of many natural advantages, are overwhelmed with toil and fatigue, as the law prohibits the employment of negro slaves in the labours of the field. Among the middling classes, morals are not very pure. The better class of people pass their indolent lives in country houses, or *quintas*, the gardens of which possess nothing attractive; they each contain a chapel; and the service is performed by a private chaplain. The only persons of real wealth are the English merchants and Irish catholics settled in the capital. The land of the island belongs, as manorial property, to the descendants of Captains Tristan Vaz, and Joaõ Gonsalves, to whom the king of Portugal gave the sovereignty, as a reward for their services. It is divided politically into two governments.^g That of Funchal, the most fertile and populous, includes the capital of the same name, a town most agreeably situated on the southern coast, at the foot of high mountains, and defended by many forts. It contains two thousand houses, and more than twelve thousand inhabitants.^h In the church of the Franciscans, there is a chapel with its window sashes of massive silver; while the walls of another are covered with human skulls, which also constitute all the ornaments of the altar. The road-stead is not tenable in winter. The government of *Machico*, formerly fertile in sugar, and which still produces the best Malmsey wine, contains a town of the same name situated on the eastern coast, and having a bad open roadstead.

The revenues of the island are not known with certainty. M. Lundy estimates the produce of the customs alone at 320,000 crusades,ⁱ and, in favourable years, at 400,000. To this must be added the tithe, and the monopoly of tobacco.

The island of *Porto Santo*, situated to the north-east of Madeira, was given, in 1446, to Bartholomeo Serestrello, who first colonized it. It consists only of a steep mountain, often enveloped in clouds, surrounded with a strip of low land, and containing about twelve hundred inhabitants.^k The soil is tolerably fertile, and produces good wine,

^a Heberden, Philos. Trans. vol. XLVII. p. 357, &c. vol. XLVIII. p. 617.

^b *Passiflora laurifolia*, L. ^c Sloane, p. 9—14. Banks, Forster.

^d "Madre sec." Madeira wine is classed under five qualities, viz. London particular, London market, India market, New-York market, and cargo. Besides these, there are Sercial, sweet and dry Malmsey, and Tinto, or red wine.—P.

^e Barrow, Voyage to Cochinchina, ch. I.

^f Philos. Trans. LVII. p. 461, &c.

^g *Capitanias*.

^h Lundy, a Danish traveller, says twenty thousand.

ⁱ A Portuguese coin, value 2s. 3d. sterling, or 50 cents.

^k 3000 or 4000.—*Ed. Encyc.*

oranges, barley, rye, and wheat. There are also many rabbits and goats, partridges, pigeons, and wild turtle-doves, bees affording a good honey, oxen, sheep, hogs, and even some horses and mules. The small town of the same name on the southern coast, has a very good anchorage.

Sailing westward two hundred and twenty leagues we arrive at the archipelago of the Azores, so called from the great numbers of goshawks (in Portuguese *Azor*) found on them at their first discovery. They are also called *Terceiras*, after the largest among them, or Flemish Islands, *Flamengas*, after the Flemish navigators who came here almost at the same time as the Portuguese, and who in part peopled them. The English sometimes designate them by the name of Western Islands.

They are situated in a line from south-east to north-west, and form three groupes. The southern, and nearest to the route pursued by vessels coming from Europe, consists of the islands of *Saint Mary* and *Saint Michael*. The middle group comprehends *Terceira*, *Saint George*, *Graciosa*, *Fayal*, and *Pico*; to the north are *Flores* and *Corvo*. The air is healthy, the climate agreeable, and milder than in the countries of Europe situated in the same latitude. The heat of summer is tempered by the sea breezes, and the winter is characterized only by cloudy weather, by rains, and by winds that sometimes blow with the force of a hurricane. The cold is never so great as to render it necessary to warm the apartments. Snow and ice appear very seldom on the tops of the highest mountains. Earthquakes are the only scourges of these fortunate islands, whose volcanic nature is attested by the form of the mountains, by craters, rents in their sides, numerous caverns, lavas, pumice stone, and cinders collected in every part. The coasts are generally high and steep; the soil has little depth, but is very fertile, and well watered by fresh and clear streams. Its produce and exports consist of flax, wheat, barley, maize, millet, pulse, olives, oranges, lemons, and much good wine, which often passes for Madeira. Some time ago the produce was estimated at 34,100 pipes;^a it must have increased in consequence of the demand for it in England. Woad formerly constituted an important branch of commerce; the sugar cane was also cultivated. Among a great variety of trees, we may notice the banana, and particularly the cedar tree, which constitutes the finest ornament of the forests. The hills are covered with a perpetual verdure. There are very large oxen, many hogs and sheep, good mules, and asses.

The sea affords a rich repast of delicate fish, small turtles, and many shell-fish, among which are two kinds of excellent oysters, called *Lapas* and *cracas*. The whale-fishery, now neglected, was formerly very lucrative.

The excellent climate of the Azores is so favourable to population, that they have been able to furnish Brazil, and even the province of Alentejo, in Portugal, with inhabitants. Raynal estimates the number of inhabitants at 142,000; but, according to a more recent account, published in 1789, it was as high as 150,174.^b *Saint Michael*, *Fayal*, and *Graciosa*, are the most populous. The inhabitants are white, with the exception of a small number of negroes employed as servants. The nobility are nu-

merous, and possess a considerable part of the land. The inhabitants are industrious, sober, and healthy, but are unprovided with the means of education. In productive years, the Azores can fit out for Brazil, Portugal, England, and other northern countries, fifty vessels laden with corn, fruit, honey, pulse, flour, salted meats, bacon, orchil, coarse linen, brandy, wine, vinegar, &c.; the absolute want, however, of a spacious, safe, and deep port, will ever prevent the commerce of these islands from acquiring any great extent.

The governor, captain-general of the nine islands, resides at Angra: he is appointed, in the first place, for the term of three years, but may be continued.

The administration of each island is under the control of one or two captain-majors,^c who attend to the maintenance of the police, command the militia, and inspect the receipt of the taxes. The two forts at Angra have separate commandants; in other respects, the islands are in a bad state of defence.

The churches are not highly endowed, and convents, particularly those of nuns, are few in number.

Saint Michael, or *San Miguel*, the nearest to Portugal, has a surface of 15,018 geographical square miles. In 1790^d its population amounted to 62,214 persons; of which number, 27,234 were males, 33,624 females, and 1256 were ecclesiastics or religious persons^e of both sexes.

The eastern and western coasts are bordered by high mountains. Towards the middle, the heights are less elevated and of a conical form. Traces of volcanic eruptions are every where observed; the last took place in 1652. The craters seen on the greater number of the mountains, particularly towards the west, are now converted into lakes. Naturalists admire, among others, in the eastern part of the island, a deep and very romantic valley, called *Furnas*,^f which appears to have been formed by the sinking of a volcano. Its form is oval, and rather more than a geographical mile in circumference. High mountains, steep and covered with cedars, point out its extent. One part of this valley presents the appearance of a terrestrial paradise, while the other and deeper part is almost entirely filled with pumice stones reduced to powder. The hollow is occupied by a tolerably large lake of fresh water, and by many springs of mineral and sulphureous waters, both warm and cold. They give rise to the *Ribeira Quente*, a small river, whose smoking waters open a passage for themselves through the clefts of rocks, and towards the south-east empty themselves into the sea, where, in some places, at a considerable distance from the shore, the water may be seen to bubble with violence.

The island is in general well watered, and very fertile, but indifferently cultivated. They do not derive all the profit which they might from its mineral productions, such as sulphur, native sal-ammoniac, marl, red oxide of iron, vitriolic earth, and pumice stone. The Dutch, long ago, exported fuller's earth;^g and, in the sixteenth century, there was in the vale of *Furnas* a manufactory of alum that furnished 4833 quintals in the space of ten years. Vegetation is in the highest state of beauty, and numerous groves diversify the landscape; the fields produce, at little expense, excellent wheat, maize, a little barley, beans, and

^a Brue, in Labat's Western Africa, vol. V. p. 285.

^b Vicente Tofino, Derrotero de las costas de España. Before the great earthquake, it was 300,000.

^c Capitam mor.

^d Lisbon Almanac, 1791.

^e "Religieux," monks and nuns.

^f Mason, in the Philos. Trans. LXVIII. p. 1. Cordeyro, Historia das ilhas sujeitas ao Portugal, p. 146.

^g Mem. econ. da Socied. de Lisboa, tom. I. 187. seq. 299. seq.

rice in large quantity. In the gardens are raised very fine oranges and many other fruits. The vines, planted principally upon decomposed lava, produce annually 5000 pipes of wine. The pastures are good and abundant. The vale of Furnas furnishes excellent honey; the shore, sponges, which they do not attend to; and the sea abounds in pilchards, the food of the lower classes.

The inhabitants manufacture coarse linens, to send to Brazil.

Punta Delgada, the capital of the island, with a population of 12,000 inhabitants, carries on a considerable trade in the productions of the country, both with Europe and America. It has, nevertheless, a bad roadstead, defended by the fort of Saint Braz. *Ribeira Grande*, a town with 6000 inhabitants, has many looms for cloths.^a

A phenomenon of great interest ought still to detain us some moments in these seas: it is the consideration of one of those volcanic islands, the summit of which is at one time above the waters, and at another considerably below the surface. The sea of the Azores probably contains more than one volcanic mountain, similar to those that, in the islands, raise themselves above the surface of the waters.

Without attending to a very obscure Portuguese tradition, according to which the whole island of Corvo arose from the sea by a volcanic eruption, we shall here mention that, during the great earthquake of 1757, which laid waste the island of Saint George, and destroyed 1500 persons, or a seventh of its population, eighteen small islands, according to several authentic testimonies, although not circumstantially detailed, were seen to rise from the sea, at a distance of 200 yards from the shore.^b

But the only sub-marine volcano, satisfactorily observed, is that near the island of St. Michael. It was during a violent earthquake in 1638 that flames and puffs of smoke were seen to rise from the agitated sea. According to the report of the fishermen, this vast fire was extended over a space of several acres; earthy matters and masses of rock were seen tossed into the air, and falling again into the sea, upon which they floated; other rocks of a blackish colour seemed to rise from the waters; some of them were raised to a height of sixty fathoms: by degrees all these masses were united, covering a space of three leagues in length, and half a league in breadth. These eruptions continued during three weeks: all these rocks, raised above the sea, are then said to have disappeared without a trace being left.^c The fishermen, witnesses of this catastrophe, took fragments of the rocks ejected from the sea; they burst into fragments, and left nothing but a blackish gravel: these then were scoræ and volcanic tuff. The crater of the volcano had afforded shelter to great numbers of fish: It was the ordinary rendezvous of the fishermen of the island; and, at the time of the eruption, the sea ejected so many dead fish that the air became infected by them.

We must here notice a circumstance, of little importance in itself, but which, in its consequences, may become of the greatest interest for natural history and physical geography. The authorities we have already quoted, agree in fixing the period of this memorable eruption in the year

1638. Nevertheless, Buffon affirms that this occurrence took place in 1628; he relies on the authority of Mandelslo, a famous navigator: yet, in looking into the original German edition of Mandelslo's account, published by Olearius in 1658, nothing is to be found on the subject of this eruption: it is the same in the Dutch translation. The passage quoted and transcribed by Buffon is only to be found in the French translation by Wiquefort, (Paris, 1678,) and in the English one, in Harris's collection, (London, 1705;) it was natural to reject an opinion so feebly supported: but if, nevertheless, by a chance not without example, this opinion should be found confirmed by some new testimony; if Gassendi and Kircher were deceived in substituting 1638 for 1628, the three known eruptions of this volcano, namely, that of which we have been treating, and those of 1720 and 1811, would be found at a distance from each other of from ninety-one to ninety-two years; which will allow of our considering this volcano as being subject to a *regular period*. So curious a result merits a farther examination of the true date of the eruption of the seventeenth century.

Whatever may be the real nature of this chronological question, the date of the eruptions of 1720 is well established. It was in the month of November of that year, that, after a violent earthquake, an island resembling a conical mountain was observed to rise between the islands of St. Michael and Terceira; it emitted flames, ashes, and pumice stones; a torrent of burning lava ran down its steep sides; it became as large as a marine league in circumference, and was visible at a distance of eight or ten leagues. It soon, however, began to sink, and in the month of November, 1723, had disappeared altogether. The soundings gave eighty fathoms in the very spot where it had appeared. Many detailed, unanimous, and authentic accounts, are given respecting the emersion of this island; the appearance on the spot has even been drawn;^d so that it is difficult to raise any doubt of the reality of the occurrence. This, however, has been attempted by a learned Spanish hydrographer: he maintains that this pretended island was nothing but a collection of scoria and pumice stones, thrown out that same year from the Peak of the Azores, the Peak of Camarinhas, (in the island of Saint Michael,) and other volcanoes of this archipelago, carried along and united by the marine currents.^e But the height of the island, and the appearance drawn, sufficiently refute these ideas. It will only remain to examine whether this island existed in the same situation with that of 1628 or 1638: there are accounts that place it much farther in the sea.

The same uncertainty prevails respecting the volcanic island that rose in these seas in the month of July, 1811. The reports of navigators, who were eye-witnesses, forcibly describe the terrors produced in them by this physical revolution:—the sea boiling, a column of fire, smoke, and ashes thrown up into the air; the destruction of a part of the island of St. Michael; dead fish; and the waves covered with pumice stones. But the volcanic island appeared to the *south-east* of the great island, which does not appear to agree with the position of the volcanic island of 1720. An English captain, who was present at the rise of this island, assigns to it three miles of circumference,—

^a Cordeyro, p. 144.

^b Madrid Mercury, Dec. 1757.

^c Cordeyro, p. 140. Kircher, *Mund. Subterr.* t. I. lib. II. cap. 12. p. 82. Gassendus, de *Vitâ Epicuri*, t. II. p. 1050.

^d Raspe, *Insul. hist. nat.* cap. 2. § 26, 27.

^e Atkins' *Voyage*, (London, 1735,) p. 28. De Montagnac, *Mém. de l'Acad. des Sciences de Paris*, 1722, p. 12. Codronchi, *Comment. Bonon.* I. 205.

^f *Philos. Transact.* 1722. vol. XXXII. p. 100.

^g Vicente Tofino, *Derrotero*, p. 219.

he gave it the name of *Sabrina*, and took possession of it as an *English discovery*; the sea, however, has already swallowed up this new British possession.

Saint Mary, (*Santa Maria*,) the farthest to the south-east of all, and one of the smallest, contains only 12,000 inhabitants. The land, very high towards the east, descends a little towards the west. Marble is extracted, and an argillaceous earth that makes very fine pottery. It also possesses a species of Guinea sea-bird, called *garajaó*. Wheat, wine, cattle, lime, and pottery, are exported. *Villa de Santa Maria* is the capital. To the north-east of this island, at a distance of five miles, are found the *Formigas*, a group of uninhabited islets and rocks, that may probably belong to the summit of a sub-marine volcano.

The coast of *Terceira* is in general high, and in part inaccessible. Although the soil does not appear to be volcanic, it has nevertheless been recently subject to earthquakes. A very formidable volcano even was formed in 1761.^a The vegetable soil is deeper than in the other Azores, and extremely fertile. It contains some forests of cedars, chesnut and mulberry trees, and orchards of fine lemon, orange, and apple trees. The wine of the country is indifferent, but the fields are well cultivated, and produce a considerable quantity of wheat for exportation. The feeding of cattle, favoured by excellent pastures, is more extensive than in the other Azores: the cheese also, and hams, of *Terceira*, are in repute. The sea abounds in anchovies, goldneys, graylings, perch, barbel, and other more rare fish. The fishing is facilitated by the shallows near the shore.

The population amounts to 28,900 persons. Industrious and sober, the inhabitants of *Terceira* still retain an ancient reputation for courage, which they have merited, by maintaining to the last extremity the independence of the Portuguese name against Spanish usurpation, and by shaking off this odious yoke as soon as the elevation of the house of Braganza was known to them.^b

Angra, the capital, contains more than a third of the population. It is the seat of the ecclesiastical, civil, and military authorities of the whole archipelago. The inhabitants export in their own vessels, corn, flax, linen, and wine. Angra is also the common resort of Portuguese vessels going to Brazil and the Indies.

The island of *Saint George*, or *São Jorge*, between the islands of *Graciosa* and *Pico*, is high without being mountainous. In the south, there are vineyards, the produce of which is preferred to the other wines of the Azores,^c and excellent pastures. Besides the advantages enjoyed by the other Azores, it possesses an abundance of wood, even timber for building, and the best water. Its population exceeds 11,000 souls.

Graciosa, one of the smallest, is situated north-west of *Terceira*. The enchanting appearance of its three mountains, seen from the south-west, the great fertility of its soil, and the very peculiar salubrity of its climate, have procured for it the fine name it bears. It produces corn, pulse, pot-herbs, fruits, wine, brandy, butter, and cheese; but it is without fire-wood. Its population is 7315 souls.

Fayal, the most western of the central group, has more than 16,000 inhabitants. Lofty and steep rocks border the coast in almost every direction. The soil, undulating and covered with a rich verdure, rises towards the middle of the island, where the mountains, ranged in a circle, surround a deep valley a league in breadth. It is called *a Caldeira*, or the Caldron, and is believed, with some degree of probability, to owe its origin to the sinking of a volcano. A third of its extent is occupied by a lake, in which are united the springs of many running waters. The beautiful meadows and delightful groves that deck the borders of this lake, and extend along the gentle declivity of the hills, vary the prospect, and form an enchanting residence.

The climate of the island is in general delightful and very healthy; the soil is so fertile as frequently to yield two harvests of wheat and maize. In the gardens and orchards, the potato, recently introduced, grows by the side of lemon and orange trees: but there are few vineyards, and their produce is of indifferent quality. The wines, known in commerce by the name of *Fayal*, are brought here from *Pico*.^d Tufts of ash, of tall beech,^e and chesnut trees crown the heights; but myrtle bushes, and other evergreen shrubs, generally predominate.

The inhabitants are remarkable for the goodness and mildness of their character, the simplicity of their manners, and honesty in their dealings.

Villa da Orta, the capital of the island, sometimes called by mistake *Fayal*, has a population of 4000 persons. It is only a large village, built in the form of an amphitheatre, on a spacious bay, affording tolerably good anchorage. Around the bay, forests of lemon and orange-trees cover the sides of the hills as far as the eye can reach. It is the market for all the productions of *Fayal* and *Pico* islands, and the centre of a considerable commerce. There are French, English, Spanish, and American consuls.

Pico, very close to *Fayal*, is the largest of the Azores, after *Saint-Michael*; but it has a population of only 21,000. The western part presents only an assemblage of mountains surmounted by the *Pico*, an ancient volcano, from which the island takes its name, and which rises near the coast to a height of 1250 toises:^f in clear weather it may be seen at sea at a distance of thirty-four marine leagues. At its summit, generally enveloped in clouds, or covered with snow, is found a crater that constantly emits smoke.^g Lower down, large caverns are found, from the roofs of which much water drops. Verdure begins to appear: by degrees forests succeed to bramble-bushes; and pastures of aromatic plants allure the cattle. At last, the lower elevations, where the inhabitants have covered the stones and lava with earth, partly bought at *Fayal*, and transported with great pains to these heights, prove what labour and human perseverance can accomplish, even in a contest with nature. Excellent vineyards, sheltered by walls against the winds from the sea, here occupy a great extent of land.

The eastern part of the island is low, level, and fertile: nevertheless it is with difficulty that a sufficient quantity of corn is raised to supply half its inhabitants; and the poor

^a Hebbe, Account of *Fayal*, &c. Stockholm, 1804.

^b Cordeyro, *Historia insulana*, p. 358—405. De Sousa, *Hist. de la Casa-Réal*, &c. t. VII. p. 177.

^c Hebbe, work above quoted.

^d Hebbe, Account of the Island of *Fayal*. (In Swed.)

^e The beech trees, in Portuguese *fayas*, have given to the island its name.

^f Tofino, *Derrotero*, p. 225. *Zach. Eph. Géog.* t. II. p. 395. Other observations state its height at 1431 toises. A. de Humboldt, *Voyage historique*, I. 93.

^g Herbert, in *Harris's Collection*, vol. I. p. 469. Cordeyro and Hebbe.

derive the principal part of their subsistence from yams, that are in great abundance. All the fruits, likewise, of the south of Europe, grow abundantly, and of excellent quality. Wine, however, constitutes the greatest riches of the island. It produces, according to the season, from 15 to 30,000 pipes. There are two principal kinds,—the malmsey (*vino passado*) is equal to Madeira wine, of which, however, a small quantity only is made; the other, (*vino seco*,) varies much in its goodness. The vintage time is in the beginning of September, a period of holidays and continual mirth, that brings thither a third of the population of Fayal. The wines of Pico are carried principally to Brazil, the United States, and England; a part also to Holland, to the North, and to Angola. The forests, principally consisting of cedars, produce also many yew trees, the wood of which is in much request for cabinet-work, and was formerly a monopoly of the crown. The inhabitants of Pico are famous for the beauty of their forms, their vivacity, and their fondness for industry and cleanliness. They are principally like those of Fayal, descendants of the Flemish colonies conducted by Jobst de Hurter,^a father-in-law of the celebrated geographer Martin Behaim.^b

The island of Flores, situated north-west of Fayal, is steep along the coast, mountainous in the interior, covered with a thin bed of earth, and well watered by clear streams, that form several fine cascades. Exempt from earthquakes, it is, nevertheless, subject to violent winds, that often destroy the hopes of the husbandman. Forests of large cedars embellish the mountains; the plains produce wheat, rye, yams, and *yuncas*, a tuberous root, the flour of which, mixed with that of rye, makes a good bread; the rocks of the coast are covered with orchil, which is not gathered without danger. The vine is not cultivated, and maize does not succeed. The breeding of sheep and fowls occupies much attention. More than three thousand inha-

bitants are partly employed in the manufacturing of woollen stuffs.

Corvo, the smallest of the Azores, as well as the most northern, is sometimes included with the preceding island under the general name of *Os Corvos*. Colder than Flores, it abounds in excellent wheat, pulse, yams, flax, cattle, and cedar wood. Its population amounts only to seven or eight hundred individuals, who have every thing in common. In this way they share with each other the milk of their herds, the wood that they are allowed to cut, and the wool of their flocks, of which they make coarse stuffs. There are some anchorages along the coast, and at the northern and southern extremity of the island are two mountains, one of which encloses, in a hollow on its summit, a lake of fresh water. It has been asserted, without proof, and even without probability, that the island owes its origin to a submarine volcano.

We shall not conclude this description of the Azores, collected from pure and authentic sources, without acquainting our readers that we have discussed in another part of this summary,^c several questions relative to the history of the discovery of these islands; we have adopted the opinion that they had been visited at least a century before the Portuguese imagined they had discovered them. Not only do the descriptions of the Arabian geographers clearly point out other islands besides the Canaries,^d but the Azores appear on manuscript charts even of the fourteenth century. The name of one of them, *Bentufla*, had appeared to us to be Arabian, and we had considered the Moors of Spain as the first authors of the discovery. Benincosa's chart of 1476 appears however to prove that the name *Bentufla* is only an Arabic corruption of the Spanish or Italian word *Ventura*; a circumstance that assigns to Europeans the honour of the first discovery.^e No new light has appeared to guide us in these obscure matters.

^a Job de Huerter.

^b M. de Murr, *Histoire diplomatique de Martin Behaim*, p. 23—27. *Idem*. *Journal pour l'histoire des arts*, t. VI. p. 8. 18. 28. (In German.)

^c In the *History of Geography*, *passim*.

^d Hartmann, *Africa Edrisi*, p. 314. sqq.

^e Letter from M. Auguste de Staël Holstein, to the author of this geography, designed to be inserted in the *Annales des Voyages*, and at present in the *Minerva*.

TABLE

OF THE

PRINCIPAL GEOGRAPHICAL POSITIONS OF AFRICA,

WITH THE EXCEPTION OF EGYPT.

Names of Places.	Lat. N.	Long. E. from Paris.	Sources and Authorities.	Names of Places.	Lat. N.	Long. W. from Paris.	Sources and Authorities.
<i>Coast of the Mediterranean.</i>				Cape Mesurado, . . .	deg. min. se. 6 27 0	deg. min. se. 12 55 0	Officers of the Ocean, vessel belonging to the E. India Company, in 1802.
Cape Razal,	deg. min. se. 33 4 0	deg. min. se. 19 27 43	Bureau des Longitudes, in the <i>Connaiss. des Temps.</i>	Great Sestre, . . .	4 39 0	10 31 0	Royal Charlotte, E. India Company's ship, in 1793, by chronometer.
Tripoli, (city)	32 53 40	11 1 7	Idem.	Cape Palmas,	4 30 0	10 1 0	Captain Young. Requisite Tables. Royal Charlotte.
Cape Bon,	37 3 45	8 48 15	M. Châbert. Chart of the Mediterranean, by M. Lapie.	Cape Apollonia, . . .	4 59 12	5 30 11	Requisite Tables.
Tunis, (city)	36 37 0	7 46 48	Wurm.	Cape Three Points, . .	4 40 30	5 3 32	Idem.
Idem,	36 43 0	7 44 0	Conn. des Temps.	St. George de la Mina,	5 1 38	4 20 12	Idem.
Cape Blanco, (North) .	37 22 30	7 23 15	Châbert. Lapie.	Quitta, (the fort) . .	5 49 0	1 16 30	Hallowell, by chronometer.
Cape Serrat,	37 9 30	6 48 40	Idem. Idem.	Whidah, (the road) . .	6 14 0	0 15 0	Idem.
Cape Tedeles,*	36 57 0	1 53 48	Conn. des Temps.	Cape Formoso,	4 18 0		Captain Matthew.
Algiers, (city)	36 48 36	0 41 5	Idem.	Fernando Po Island, (north-west bay) . .	3 28 0	5 16 0	Oriental Navigator. ^d
Idem,	36 49 30	1 8 0	De Grandpré.	Prince's Island,	1 37 0	5 20 0	Conn. des Temps.
Oran, (the castle) . . .	35 44 27	2 59 45	Tofino.	Idem,	Idem.	5 7 0	Oriental Navigator. ^e
Melilla,	35 18 15	5 17 35	Idem.	Island St. Thomas, . .	0 27 0	4 28 0	The Argo, for the lat.
Cape Tres Forcas, . . .	35 27 55	5 17 25	Idem.	Annabona, (the road) .	Lat. S. 1 25 0	3 25 0	Don Varelo, 1799. The India ship Queen, in 1796.
Ceuta, (the town) . . .	35 48 50	7 36 24	Conn. des Temps.	Cape Lopez,	0 50 0	6 20 0	Oriental Navigator. ^f
Idem, (Mont del Acho)	35 54 4	7 36 30	Idem.	Idem,	0 56 0	5 44 0	De Grandpré. ^g
Tangier, (city)	35 46 30	8 18 40	Wurm.	Cape Yomba,	3 30 0	8 6 0	Oriental Navigator.
				Malemba,	5 22 0	9 54 0	Idem.
				Cape Padraon,	6 11 0	10 5 0	Captain Wood, in 1798, for the lat.
WESTERN COAST.				Ambriz Bay,	7 53 0	10 58 0	Oriental Navigator.
Cape Spartel,	35 48 40	8 14 25	Vincent Tofino.	Idem,	7 5 0	10 44 0	De Grandpré.
Idem,	Idem.	8 13 25	Conn. des Temps.	St. Paul de Loanda, . .	8 50 0	11 26 0	Dalzell for the latitude. Oriental Navigator for the longitude.
Idem,	36 45 0	8 17 12	Requisite Tables.	St. Philip de Benguela,	12 29 0	11 6 30	Capt. Heywood, 1811.
Rabat, (entrance of river)	34 5 0	9 3 0	Borda and Desoteaux.	Cape Negro,	16 3 0	9 34 0	Idem.
Fedal, (island)	33 47 0	9 30 45	Fleurieu.	Cape Serra,	21 53 51	12 20 0	Oriental Navigator.
Cape Lantin,	32 33 0	11 31 0	Borda.	Walvisch Bay,	22 53 57	12 25 0	Idem.
Saffy, (town) N. point,	32 22 0	11 30 0	Idem.	Porto do Ilheo,	23 30 0	12 29 0	Idem.
Idem, S. point,	32 12 0	11 29 0	Idem.	Angra Pequena,	26 36 50	12 56 30	Idem.
Mogadore, (island) . .	31 27 0	11 50 0	Fleurieu, Borda, &c.	Cape of Good Hope, . .	34 23 40	16 12 10	Mean of the observations of La Caille, Mason Dixon, Heywood, &c.
Cape Geer,	30 38 0	12 12 0	Idem.	Idem, (the town) . . .	33 55 15	16 3 45	La Caille.
Cape Bojador,	26 12 30	16 47 0	Borda.	Idem,	34 29 0		Requisite Tables.
Cape Barbas,	22 15 30	19 0 0	Idem.	Cape L'Aguillas, . . .	34 57 0	17 58 0	Oriental Navigator.
Cape Blanco,	20 55 30	19 30 0	Idem.				
Barbary Point,	15 53 0	18 51 30	Idem. ^b	EASTERN COAST.			
Cape Verd, the Mamelons,	14 43 45	19 50 45	Idem, calculated by the Bureau D. L.	Cape St. Blaize,	34 10 0	19 58 0	Lieut. W. Rice, 1797.
Idem,	14 46 7	19 52 57	Voyages of Fleurieu, Borda, &c.	Algoa Bay, S. point, . .	34 1 0	24 20 0	Idem.
Idem, N. W. point, . .	14 47 13	19 53 16	Requisite Tables.	Port Natal, S. point, .	29 55 0	29 8 0	Ships from China, by chronometer. Oriental Navigator.
Island of Goree,	14 40 10	19 45 0	Idem.	Cape St. Mary, (Delagoa Bay)	25 58 0	30 55 0	Capt. D. Inverarity, 1802, from lunar observations.
Idem,	14 39 0	19 44 58	Captain Hallowell, by chronometer.				
Cape St. Mary, (Gambia)	13 23 0		Captain Billinge.				
Entrance of Rio Nunez, S. point,	10 30 0	16 18 0	Wesley and MacClure.				
Idolos or Loss Islands, (anchorage of the eastern island)	9 27 0	15 36 0	Pontevéz Gien, for the lat. Woodville, for the long. ^c				
Cape Sierra Leone, . .	8 30 0	14 53 47	Captain Young, 1774.				
Idem,	8 29 0	15 32 0	Officers of the English sloop Argo, in 1802.				
Idem,	8 29 30	15 29 17	Requisite Tables.				
Cape St. Anne,	7 7 30	14 42 0	Idem.				

* Tedlez, a town in Algiers, lat. 36° 57' N. long. 1° 55' 48" E. from Paris.—P.

^b Young, an English captain, found it exactly the same in 1774.

^c Woodville had just come from Sierra Leone, a distance of twenty-three miles, where he had rectified his longitude.

^d This work, communicated to us by our learned friend, M. Langlès, cites manuscript observations and charts.

^e It is known that the ship Glatton has found the longitude more westerly.

^f The longitude is concluded from that of Annabona, St. Thomas, &c.

^g This combined position is still further confirmed by Capt. Flinders.

Table of Geographical Positions, continued.

Names of Places.	Lat. S.	Long. E. from Paris.	Sources and Authorities.	Names of Places.	Lat. S.	Long. E. from Paris.	Sources and Authorities.
	deg. min. sec.	deg. min. sec.			deg. min. sec.	deg. min. sec.	
Cape Corrientes, . . .	24 1 30	33 31 30	Capt. D. Inverarity, 1802, from lunar observations.	Road of Mourangaye, Bombetoc Bay, (entrance)	15 3 0		Ann. des Voyages.
Bay of Inhambane, . . .	23 47 0	33 32 0	Idem.	Idem, (port)	16 25 0	44 35 0	Idem.
Bassas de India,	22 28 0	38 31 0	Spears and D. Scott, 1804.	Cape Table,	15 43 0	43 46 0	De Mannevillette.
Sofala, (the fort)	20 15 15	32 25 0	The ship India, lunar observations, 1802.	Chesterfield entrance,	16 20 10	41 47 45	Capt. Inverarity.
Quillimane, or Cuama River,	18 15 0	35 0 0	D'Apres de Mannevillette.	Jean de Nova Island,	17 2 45	40 45 30	Mr. Hall Gower, from numerous lunar observat.
Idem,	18 10 0	35 10 0	Oriental Navigator.	Murundava Bay,	21 10 0	42 40 0	Different observers. ^a
Mafamede,	16 21 30	38 5 30	Captain Huddart, in 1784, by chronometer.	St. Augustin Bay,	23 36 25	41 43 0	Idem. ^b
Mosambique, (the fort)	15 9 0	38 26 0	Weatherhead, and other English officers, 1809.	Idem,	23 23 0	41 34 0	Idem. Oriental Navigator.
Idem,	15 15 0	37 56 0	Epid. Colin. Annales des Voyages.	Cape St. Mary,	25 42 0	42 55 0	Ann. des Voyages.
Idem,	15 2 0	37 58 0	D'Apres de Mannevillette.	Idem,	25 40 30	43 4 0	Oriental Navigator.
Querimba Island,	12 31 0	38 36 0	Portuguese chart in Salt's Voyage.	Fort Dauphin,	25 5 0	44 52 0	De Mannevillette.
Cape Delgado, S. point,	10 9 0	38 41 0	Oriental Navigator, and the chart above cited.	Idem,	25 1 4	44 18 0	Idem.
Quiloo Island,	8 27 0	37 21 0	Oriental Navigator.	St. Lucia Bay,	24 44 0	45 35 0	Oriental Navigator. ^c
Zanzibar, { N. point,	5 40 0	37 53 0	Idem.	Tamatave,	18 12 0	47 20 0	Lislet Geoffroy. Annales des Voyages.
{ S. E. point,	6 26 0	38 2 0	Idem.	Foul Point,	17 40 14	47 33 0	Oriental Navigator.
Mombaza, (port)	4 4 0	38 12 0	Idem.	Idem,	Idem.	47 32 30	Conn. des Temps.
Formosa Bay, { N. point,	3 0 0	39 11 0	Idem.	Ibrahim, or St. Mary Island, N. E. point,	16 33 0	47 57 0	Requisite Tables.
{ S. point,	2 39 0	39 28 0	Idem.	Antongil Bay, (the point)	15 27 0	48 4 0	Oriental Navigator.
Juba, (village)	0 12 0	41 8 0	Idem.	Port Louquez, (entrance)	12 43 0	47 35 0	Annales des Voyages.
Berua, or Brava,	1 10 0	42 20 0	Idem.	COMORA ISLES, SEV- CHELLES, &c.			
Magadexo,	2 6 0	43 10 0	Idem.	Great Comora, (N. W. anchorage)	11 18 0	40 56 0	Oriental Navigator.
Cape Bassas,	4 57 0	45 45 0	Idem.	Mohilla, (E. anchorage)	12 22 0	41 49 0	Oriental Navigator.
Cape Orfui, or Hafoân,	10 30 30	49 1 0	Capt. Weatherhead, Butler, Moffat, &c.	Johanna, (the peak)	12 15 0	42 14 0	Idem.
Cape Guardafui,	11 50 0	49 10 35	Idem.	Idem, (south point)	12 27 30	42 14 30	Idem.
Socotora, (Tamarida Bay)	12 30 0	51 31 0	Oriental Navigator.	Mayotta, (Valentine peak)	12 54 0	42 57 0	Idem.
Idem,	Idem.	51 3 30	Captain Tait.	Alphonso Isle,	7 3 31	50 0 30	Capt. Inverarity.
Zeila,	11 18 33	40 45 0	Sir H. Popham's chart, doubtful.	Cosmoledo Group,	9 50 0	46 0 0	Oriental Navigator.
Island of Perim, or Babelmandeb,	12 35 30	41 8 0	Moffat and Popham.	Galega Isle, ^e	10 25 30	54 18 48	Officers of the Clorinda, &c. in 1811.
Amphila Bay, (the anchorage)	14 42 40	38 42 30	Salt and Weatherhead, by chronometer.	Coetivy Isle,	7 12 0	54 13 0	M. de Coetivy.
Dahalac Island, South point,	15 32 30	37 55 0	Capt. Court, 1804.	Platte Isle,	5 51 0	53 11 0	Oriental Navigator. ^f
Arkeeko,	15 34 45	37 17 15	Salt, R. Stuart, &c.	Maria-Louisa Isle,	6 12 0	52 19 0	Idem.
Port Mornington, (the entrance,	18 14 0	36 12 0	Capt. Court, Charts of Lord Valentia's voyage.	Mahe Isle (N. E. side)	4 38 0	53 15 0	Idem.
Suakem,	19 4 38	35 12 0	Idem.	Praslin Isle,	4 19 0	53 26 30	Idem.
Cape Razal Gedid,	22 7 0	34 51 0	Expedition of Sir H. Popham.	Chagos, or Diego Garcia Isle,	7 29 0	70 7 0	Capt. Heywood and Blair.
<i>Eastern Islands.</i>				THE MASCARENHAS.			
MADAGASCAR.				Isle of France, (Port Louis)	20 9 39	55 9 15	De Mannevillette and Flinders, mean.
Cape Ambre,	Lat. S.	Long. E.	D'Apres de Mannevillette.	Bourbon, (St. Denis)	20 51 30	53 7 30	De Mannevillette.
Idem,	Idem.	47 5 0	Capt. Stephens, in 1803, from two hundred lunar observations, and by chronometer.	Rodriguez, (the centre)	19 41 0	60 50 0	Idem.
Nosse, (anchorage)	13 12 0	47 53 15	Ann. des Voyages.	Cargados, or Garajos Island, ^g	16 28 0	57 11 0	Frigate La Semillante.
Passandava, (city)	13 45 0	46 3 0	Capt. D. Inverarity.	ISLANDS OF THE SOUTHERN OCEAN.			
Sancasse Island, (Naranda Bay)	14 31 0	45 25 0	Idem.	Amsterdam,	37 51 0	75 27 0	Orient. Nav. mean of several observations. ^h

^a According to numerous recent observations, Jean de Nova is the same as the Island of St. Christopher.
^b Probably by mistake of the copyist, or from the obscurity of the manuscript sent from the Isle of France, it is marked in the *Annales des Voyages*, 20° 10' S.
^c A mean taken between De Mannevillette and several English observers.
^d The English longitudes appear to be too westerly.
^e It is inhabited by the captain of a French privateer and some negroes.

^f These positions result from the mean taken between several English and French observations.
^g It is at present inhabited by a small number of French and other families.
^h The Oriental Navigator, like most of the English writers, applies to the island of Amsterdam what belongs to the island of St. Paul, and vice versa. The Requisite Tables give the names in their true and original sense.

Table of Geographical Positions, continued.

Names of Places.	Lat. S.	Long. E. from Paris.	Sources and Authorities.	Names of Places.	Lat. N.	Long. W. from Paris.	Sources and Authorities.
	deg. min. se.	deg. min. se.			deg. min. se.	deg. min. se.	
Bouvet Island, or Cape Circumcision, ^a	54 20 0	4 3 0	The ships Swan and Otter, in 1808.	Teneriffe, (the peak)	28 17 0	19 0 0	Borda.
Tristan d'Acunha, (principal island)	37 6 9	14 12 0	Captain Heywood.	Idem, (idem)	Idem.	19 5 35	Requisite Tables.
Gough's Island,	40 19 0	11 54 0	Orient. Navigator.	Idem, (idem)	Idem.	18 48 0	Dalrymple, by chronometer.
WESTERN ISLANDS.				Idem, (Mole of Santa Cruz)	28 27 30	18 36 30	La Pérouse.
St. Helena, (James Town)	15 55 0	7 56 30	Captain Horsburgh. ^b	Idem,	Idem.	18 33 5	A. de Humboldt.
Idem,	Idem.	8 9 0	Maskelyne, in 1761.	Idem,	28 28 30	18 37 0	Conn. des Temps.
Idem,	Idem.	8 3 30	Requisite Tables.	Idem, (Orotava)	28 25 0	18 55 0	Borda.
Ascension,	7 55 30	16 35 30	A great number of chronological observations.	Gomera, (the port)	28 5 40	19 28 0	Idem.
Idem,	Idem.	16 41 15	Requisite Tables.	Palma, (Santa Cruz)	28 42 30	20 7 0	Idem.
Idem,	Idem.	16 19 0	La Caille.	Ferro Island, (town of Valverde)	27 47 20	20 17 0	Idem.
St. Matthew,	1 53 0	9 43 0	Ephemerides of Coimbra. ^c	Idem, west point,	27 44 0	20 20 0	Idem. ^d
CAPE VERD ISLANDS.				THE MADEIRAS.			
Sal Island, N. W. point,	16 50 0	25 16 0	Capt. Keilor, in 1782.	The Salvages, or Savages,	30 8 30	18 15 0	Idem.
Bonavista, (English roadstead)	16 4 35	25 10 15	Fleurieu, Heywood.	Idem,	Idem.	18 8 0	English India ship.
Mayo, (Eng. road.)	15 6 0	25 32 19	Fleurieu.	Madeira, (Funchal)	32 37 40	19 15 24	Capt. Flinders, 1801.
San Yago, (anchorage of Port Praya)	14 53 40	25 50 34	Mean. Orient. Navigator.	Porto Santo,	33 3 0	18 37 30	Conn. des Temps.
Fuego, (the peak)	14 56 0	26 44 3	Idem.	THE AZORES.			
Brava, (western road)	14 50 58	27 5 55	Fleurieu, corrected. Oriental Navigator.	Formigas, (rocks)	37 15 50	27 14 18	Fleurieu and Tofino, combined.
St. Nicholas, S. E. point,	16 25 0	26 30 0	Capt. Keilor, &c.	St. Mary, S. E. point,	36 56 47	27 26 0	Idem.
St. Antonio, N. W. point,	17 12 0	27 32 47	Idem.	Idem, idem,	Idem.	27 38 45	Conn. des Temps.
CANARY ISLANDS.				Idem, S. W. point,	37 57 31	27 34 18	Fleurieu, Tofino.
Lancerota, (Naos harbour)	28 58 30	15 53 0	Borda.	St. Michael, E. point,	37 48 10	27 33 20	Idem.
Allegranza, (islet)	29 25 30	15 51 0	Idem.	Idem, idem,	Idem.	27 42 22	Conn. des Temps.
Forteventura, (port Handia)	28 4 0	16 51 30	Idem.	Idem, (Punta Delgada)	37 45 10	28 4 30	Fleurieu, Tofino.
Lobos, (islet)	28 45 0	16 9 0	Idem.	Terceira, (Mount Brazil)	38 38 33	29 32 48	Idem.
Great Canary, N. E. point,	28 13 0	17 55 0	Idem.	Idem, idem,	Idem.	29 43 40	Conn. des Temps.
Idem, south point,	27 45 0	17 58 30	Idem.	St. George, S. E. point,	38 29 0	30 10 42	Fleurieu, Tofino.
Idem, west point,	28 1 20	18 11 0	Idem.	Graciosa, S. E. point,	39 0 0	30 18 0	Idem.
				Pico, (the peak)	38 26 15	30 48 15	Idem.
				Fayal, S. E. point,	38 30 12	31 1 52	Idem.
				Idem, idem,	Idem.	31 12 48	Conn. des Temps.
				Flores, N. point,	39 33 29	33 28 30	Tofino.
				Idem, idem,	Idem.	33 26 34	Flurieu.
				Idem, idem,	Idem.	33 31 0	Sir H. Popham.
				Corvo, S. point,	39 41 13	33 23 0	Tofino.

^a The difference of four degrees of longitude is too trifling in this latitude, and in so foggy a sea, to admit of any doubt of the identity of this island with the Cape Circumcision of Lozier de Bouvet.
^b The Oriental Navigator asserts, that this longitude, determined by thirty-two series of lunar distances, is regarded as the most accurate.

^c See page 150.
^d It is probable, however, that the Island of Ferro is placed some minutes too far to the east, and that its centre is twenty degrees west of Paris, or under the ancient first meridian.

BOOK LXXV.

DESCRIPTION OF AMERICA.

General Reflections.—Origin of the Americans.

THE history of geographical discoveries leads us repeatedly^a to the shores of the New World: we follow to them the ancient navigators of Scandinavia;^b and, after seeing the notices which they had collected, become lost or obscured,^c we again accompany the immortal Columbus to that continent which ought to have been honoured with his name.^d We are now about to traverse, in the progress of description, the different regions of this part of the world; but, conformably to our usual method, we shall, first of all, cast a glance over its general features, as well as the race of men by which it is inhabited.

The spirit of system has sometimes exaggerated the points of resemblance, sometimes the differences, which have been supposed to be observable between America and the old continent. The external forms of the new continent, it is true, strike us at first sight by the apparent contrast which they afford with the old. The immense island, composed of Asia, Africa, and Europe, viewed as one entire region, presents an oval figure, of which the greater diameter is considerably inclined to the equator; its outline is pretty equally interrupted on both sides by gulfs and inland seas; and the rivers descend from each in nearly equal proportions. In America, on the contrary, we perceive a lengthened, irregular, indefinable figure, with the principal dimension running almost in the direction of the poles; two great peninsulas are united together by a long isthmus, which, whether we consider its form, or the primitive rocks of which it is composed, bears no resemblance whatever to the isthmus between Africa and Asia; immense gulfs, the mediterranean seas of America, open on the eastern side, while, on the opposite coast, we perceive an unbroken shore, with only some slight indentations at the extremities; and, finally, the great rivers, almost without exception, flow towards the Atlantic.

These actual differences, nevertheless, disappear, or at least become less important, when, on contemplating the general outline of the globe, we perceive that America is merely a continuation of that belt of elevated land, which, under the names of the plateau of Caffraria, of Arabia, of Persia, and Mongolia, forms the spine of the ancient continent, and, scarcely interrupted at Behring's Straits, constitutes also the Rocky or Columbian Mountains, the plateau of Mexico, and the great chain of the Andes. This

zone of mountains and plateaus—like a vast ring, crumbled and fallen upon its encircled planet—presents, generally speaking, a shorter and more rapid declivity towards the basin of the great Austro-Oriental Ocean, of which the Indian Ocean constitutes a part,^e than towards the Atlantic and Polar Seas. This, then, is the great leading feature common to both continents—a feature in which the smaller apparent differences are lost.

This correspondence and continuity of the two great islands of the globe, already leads us to reject the idea of the more recent origin of America—an opinion which one is almost ashamed of being under the necessity of refuting, since it is contrary to the established laws of hydrostatics. Yet, how many opinions are maintained in geology, which are contrary to the laws of physics! We must, therefore, repeat, that the level of the sea being necessarily, within a few feet, every where the same, no considerable tract of country can be either more ancient, or, especially, more recent than the rest.^f The expression, *New Continent*, ought merely, therefore, to recall the chronological order of our knowledge.

The general level of America in reality presents a remarkable difference from that of the old continent. This difference does not consist in the greater height of its mountains; for, if the Cordilleras of Peru rise, by some of their summits, twenty thousand feet, we are now almost certain that the mountains of Thibet attain an equal, and perhaps a still greater elevation. But the plateaus, which support these mountains, are separated in America from the low plains by an extremely short and rapid declivity. Thus, the *region of the Cordilleras*, and that of the *table land of Mexico*—aerial, temperate, and salubrious tracts of country—come in immediate contact with the plains watered by the *Mississippi*, the *Amazon*, and the *Parana*. Even these plains, whatever may be their nature—whether they are covered with tall and waving plants, as the *savannahs* of the Missouri; or offer to the view, like the *Llanos* of Caraccas, a surface, at one time burnt up with the sun, and at another refreshed by tropical rains, and clothed with superb grasses; or whether, in fine, similar to the *Pampas*, and to the *Campos Parexis*, they oppose to the fury of the winds their hills of moving sand, intermingled with brackish ponds, and covered with saline plants; all of them preserve, for immense distances, a very low le-

^a "Deux fois," twice, viz. the discoveries of the Scandinavians and that by Columbus.—P.

^b See History of Geography, Book XVII.

^c Ibid.

^d Ibid. Book XXII.

^e Vol. I. p. 65.

^f A. de Humboldt, Berliner Monat-Schrift, t. XV. p. 191. Smith Barton's Natural History of Pennsylvania, t. I. p. 4.

^g There are many extensive tracts of country, such as the shores of the southern states, and the country S. and S. E. of the Baltic, which seem to have been originally formed in the bosom of the ocean. Whether the sea has retired and left them bare, or whether they have been raised above the waters by a force acting from beneath, is not yet determined. Such elevations have been recently caused by earthquakes; and perhaps this is the most satisfactory explanation.—P

vel, rarely interrupted by rising ground: for the ridge of the *Apalachian* or *Alleghany* mountains, in North America, and that of the *Cordilleras of Brazil*, in South America, are only connected with the great central chain of the *Cordilleras* by plateaus of little elevation, or by mere acclivities, and inconsiderable eminences.^a

From this vast extent of the American plains, results the immense length of the rivers which water that part of the globe. Of this, the following table may convey an idea:—

LENGTH AND COURSE OF AMERICAN RIVERS.

<i>Basin of the Great Ocean.</i>		Length in leagues of 25 to a degree.
Colombia, or Tacoutche-Tesse ^b			320
San-Felipe, (<i>suggested course</i>)		300
Colorado		260
<i>Unknown Basin.^c</i>		
Mackenzie, with the Unjigah (<i>Peace River</i>)		625
<i>Basin of Hudson's Bay.</i>		
Saskashawan, with the Nelson (<i>its outlet</i>)		460
Assiniboil, with the Severn		600
Albany		230
<i>Basin of the Atlantic, (NORTH AMERICA.)</i>		
The River St. Lawrence, (<i>from Ontario</i>)		220
Ottawa, (<i>its tributary</i>)		170
Connecticut		100
<i>Basin of the Gulf of Mexico, (subordinate to the Atlantic.)</i>		
Mississippi, (<i>alone</i>)		575
Missouri, with the lower Mississippi		980
Its tributaries,	Platte River	270
	Ohio	220
	Arkansas	410
	Red River	350
Rio del Norte		500?
<i>Basin of the Caribbean Sea, (same.)</i>		
Magdalena		250
<i>Basin of the Atlantic, (SOUTH AMERICA.)</i>		
Oronoco		480
Essequibo		125
Amazon, or Maranon		1000
Its tributaries,	Ucayal, or Apo-Paro (<i>Apurimac</i>) and Beni	450
	Yotau (<i>Yutay</i>)	250
	Iurna (<i>Yurba?</i>)	250
	Parana-Guza, or Madeira	575
	Topayos	310
	Xingu	360
	Napo	220
Rio-Negro	335	
Tocantins, or River of Gram-Para		500
Paraiba		180
San-Francisco		425
Parana, or Rio de la Plata		710
Its tributaries,	Paraguay	400
	Pilcomayo, (<i>a tributary of the preceding</i>)	340
	Vermejo	220
	Salado	250
Uraguay		220
Moyale-Levou, (<i>Leuvu,</i>) or Colorado		360
Cusu-Levou, (<i>Leuvu,</i>) or Negro		180

Owing to this continuation of the same level, the respective basins of the rivers are no where less distinct; for some are divided by mere ridges, and frequently even these are deficient. Accordingly, many rivers mingle at the early part of their course those waters which are destined for different estuaries. Thus, the Oronoco, and the Rio Negro, a tributary to the Amazon, communicate by the *Cassiquiari*; and a similar branch unites the *Beni* and the *Madeira*.

^a See "The Levels of the Continents," pl. 4. of vol. I. of this summary; or, the Levels of Mexico, in the Atlas of M. de Humboldt.

It appears certain that, in the rainy season, a boat might pass from the tributary streams of the Paraguay into those of the Amazon, which wind along the elevated plain called *Campos Parexis*. In North America, the same circumstance has produced an infinite number of lakes. The *Slave Lake*, the *Assiniboil*, and the *Winnipeg*, are surrounded by a hundred others, that are likewise of a very considerable size, and by many thousand lesser ones, which in general are bordered by low ridges of rocks, like those of Finland. The country becomes less covered with water as we advance towards the south. Still, nevertheless, *Lake Superior*, *Michigan*, *Huron*, *Erie*, and *Ontario*, in Canada, form as it were a sea of fresh water, whose superfluous waters precipitate themselves by the river Saint Lawrence, into the Atlantic Ocean. South America, under a more burning climate, sees its lakes rise and disappear with the rainy season. The *Xarayes*, and the *Ybera*, are of the number of these more or less periodical lakes; amongst which the *Parima*, when better known, will one day take its place.

From this general division of America into lofty mountainous plateaus, and very low plains, there results a contrast between two climates, which, although of an extremely different nature, are in almost immediate proximity. Peru, the valley of Quito, and the city of Mexico, though situated between the tropics, owe to their elevation the genial temperature of spring. They behold even the *Paramos*, or mountain ridges, covered with snow, which continues the whole year upon some of the summits, while, at the distance of a few leagues, an intense and often sickly degree of heat suffocates the inhabitants of the ports of Vera Cruz and Guayaquil. These two climates produce each a different system of vegetation. The flora of the torrid zone forms a border to the fields and groves of Europe. Such a remarkable proximity as this, cannot fail of frequently occasioning sudden changes, by the displacement of these two masses of air, so differently constituted,—a general inconvenience, experienced over the whole of America. Every where, however, this continent is exposed to an inferior degree of heat. Its elevation alone explains this fact, as far as regards the mountainous region; but why, it may be asked, does it extend to low tracts of country? To this an able observer makes the following reply: "The trifling breadth of this continent; its elongation towards the icy poles; the ocean, whose unbroken surface is swept by the trade winds; the currents of extremely cold water which flow from the Straits of Magellan to Peru; the numerous chains of mountains abounding in springs, whose summits, covered with snow, rise far above the region of the clouds; the great number of immense rivers that, after innumerable curves, always tend to the most distant shores; deserts, but not of sand, and consequently, less susceptible of being impregnated with heat; impenetrable forests, that spread over the plains of the equator, covered with rivers, and which, in those parts of the country that are the farthest distant from mountains and from the ocean, give rise to enormous masses of water, which are either attracted by them, or are formed during the act of vegetation: all these causes produce, in the lower parts of America, a climate which, from its coolness and humidity, is singularly contrasted with that of Africa. To these causes alone, must we ascribe that abundant

^b See note, p.

^c Basin of the Polar Sea?—P.

vegetation, so vigorous and so rich in juices, and that thick and umbrageous foliage, which constitute the characteristic features of the new continent."^a

Assuming this explanation as sufficient for South America and Mexico, we shall add, with regard to North America, that it scarcely extends any distance into the torrid zone; but, on the contrary, as we shall see in the succeeding book, stretches, in all probability, very far into the frigid zone, and, unless the revived hope of a North-West passage be confirmed, may, perhaps, reach and surround the pole itself. Accordingly, the column of cold^b air attached to this continent, is no where counterbalanced by a column of equatorial air. From this results an extension of the polar climate to the very confines of the tropics; and hence winter and summer struggle for the ascendancy, and the seasons change with astonishing rapidity. From all this, however, New Albion and New California are happily exempt; for, being placed beyond the reach of the freezing winds, they enjoy a temperature analogous to their latitude.

The productions of America offer some peculiarities. The most indisputable of these, is its abounding so remarkably with gold and silver, which are met with even on the surface of the soil, but principally in veins of the schistose rocks, which compose the Cordilleras of Chili, of Peru, and of Mexico. Gold is met with in the greatest quantity in the former of these regions, and silver in the latter. To the north of the mountains of New Mexico, the plains, marshes, and little ridges of rocks, frequently contain vast beds of copper. Before we inquire how it happens that the New Continent is distinguished for such immense mineral riches, it would no doubt be well to inquire whether or not the interior of Africa conceals similar metalliferous regions; nay, whether even that of Asia did not formerly contain what, in the present day, is exhausted? Taking for granted that America is decidedly superior in this point of view, it must, nevertheless, be avowed, that the situation of its minerals, the position of its mines, and the other circumstances of its physical geography, have not hitherto been described with so much care, as to enable us to indicate the cause of this superiority.

In America, as in all other regions of the world, the animal tribes appear to bear a proportion, both in their number and their size, to the extent of the country which has given them birth. The musk ox and the bison of North America, and the Magellanic ostrich of South America, equal in size the corresponding species of the old world; the elk or stag of New California even attains a gigantic magnitude; but all the other quadrupeds, such as the lama, the guanaco, the jaguar, and the anti, yield in size as well as strength, to the same description of animals in Asia and Africa. This fact, however, is by no means exclusively confined to the New Continent. The animals of New Holland with which we are acquainted, are smaller than those of America; and the same decrease of animal life might no doubt be remarked between New Holland and Madagascar or Borneo, if the present state of our knowledge enabled us to draw such a parallel.

Vegetable life, which depends on moisture, shows, on the contrary, over the greater part of America, a singular degree of vigour. The pines that shade the Columbia, whose trunks rise perpendicularly to a height of three hundred feet, deserve to be considered as the giants of the vegetable world. Next to these might be named the plane trees^c and tulip trees of the Ohio, having a circumference of from forty to fifty feet. The low parts of the country, both in South and North America, are covered with extensive forests; and yet, nevertheless, the barrenness of a part of the region of the Missouri, of the plateaus of New Mexico, of the Llanos of Caraccas, of the Campos Parexis, and of the Pampas; or, in other words, of fully one quarter of this continent, ought to deter us, in respect to its vegetation, from employing all those exaggerated expressions which are servilely copied from one description to another.

The absolute difference that exists between a great number of the animals and vegetables of America, and those of the old world, constitutes a fact of a more positive nature. With the exception of the bear, the fox, and the rein-deer, which endure with impunity the rigours of the frigid zone; of the seal and the whale tribes, inhabitants of all the shores, and of the *Didelphis*,^d probably introduced into Peru by a colony from the islands of the Great Ocean—all the animals of both Americas appear to form particular species, or, at least, distinct races. Even the American rein-deer, or the *caribou*, has never been seen in Siberia. The *original*^e is a variety of our elk; but the latter never passes the southern latitudes of Siberia. The same remark is applicable to the great wild sheep, said to be met with in the interior of California. The bison, and the musk ox,^f which pasture from the lakes of Canada to the seas of California; the cougar and jaguar, whose roars resound in distant echoes, from the mouth of the Rio del Norte to the regions south of the Amazon; the anti, or tapir, conveying a faint sketch of the elephant; the pecari, and the patira, bearing a resemblance to the wild boar; the cabiai, agouti, paca, and other species analogous to the rabbit; the ant-eaters, tamanduas, tamanoirs,^g all devourers of insects; the indolent and feeble sloth;^h the useful lama, with the vicunna; the nimble sapajou; the gaudy parrot, and the brilliant humming bird, all differ essentially from those very animals of the old continent to which they make the closest approach. All the animals thus peculiar to America, form, like those of New Holland, a distinct family, and are evidently aboriginal in the country which they inhabit. Would any one, in fact, attempt to affirm, that the cougar and jaguar have swam across thither from Africa? or can it be supposed that the tou-you,ⁱ borne on its feeble wings, could have traversed the Atlantic Ocean? Certainly no one will maintain that the animals of Peru and Mexico could have passed from Asia into America; since none of them can live in the frigid zone, which they must, first of all, have necessarily crossed. It is equally impossible to suppose, that all the animals existing on the globe, are derived from America; and, consequently, those who would place the *terrestrial paradise*

^a A. de Humboldt, Tableaux de la Nature, t. I. p. 23. Trad. de M. Eyriès.

^b "Glacial," frigid.

^c *Platanus occidentalis*, button-wood.—P.

^d Opossum tribe, "philandres."

^e Moose-deer.

^f The musk ox is found only in the arctic regions of N. America.—P.

^g Ant-eater (*fourmilier*) is the common name of the genus, of which the *tamandua* and *tamanoir* are species. There are three species of ant-eaters, (*Cuvier*)—four species, (*Ld. Encyc.*)—all natives of S. America.—P.

^h "Ai."

ⁱ Brazilian ostrich.

on the banks of either the Amazon or La Plata, would make just as little progress in this investigation as they who assign it a situation on the Euphrates. Nothing, therefore, remains, but the accommodating resource of a tremendous convulsion of nature, with a vast tract of country swallowed up by the waves, which formerly united America with the temperate regions of the old world. Such conjectures as these, however, being devoid of all historical support, do not merit a moment's consideration. Consequently, we cannot refrain from admitting, that the animals of America originated on the very soil, which, to this present day, they still inhabit.^a

This origin once admitted, we must direct our attention to a circumstance which is common to both continents. Those species which, in America, represent the lion and tiger, inhabit the torrid zone, and seem to derive from the heat of a burning climate the ferocity with which they are animated. In the same country, the form of the anti or tapir, slightly recalls to our recollection that of the elephant; thus the prolongation of the cartilages appears to belong to the torrid zone. The birds with imperfect wings and irregular^b plumage; the ostrich of Africa, and the cassowary of New Holland, seem to claim a natural kindred with the touyou of South America. The large insects, the enormous reptiles, and the birds with splendid and variously coloured feathers, people the warmer regions of either continent. The climate of their temperate regions seems to have produced the same effects on the animals which inhabit them. The two varieties of the ox that inhabit the plateaus of California and the savannahs of the Missouri, have neither the habits nor the characteristic features of the ferocious buffalo of Caffraria. The wild sheep, and the lama—that intermediate animal between the sheep and the camel—like their prototypes on the old continent, delight in the pastures of the desert. In the two worlds, there is a resemblance in every thing, but nothing is identically the same.

These reflections lead us to a very difficult question. The races of animals of which there no longer exist any individuals in the present day, and with which we are acquainted only by means of the fossil bones that are discovered in the earth, belong, in general, to an order of things very different from the actual condition of the globe, and anterior to the existence of man. May there not, however, be an exception in favour of the fossil elephant of the Ohio,^c and of the megatherium of Paraguay? Buried in unconsolidated and superficial strata, the remains of these animals may have belonged to a race which became extinct at a comparatively modern epoch.^d An exact description of the situation in which these fossil remains have been found can alone decide the question.

After having admitted an animal creation peculiar to America as well as to New Holland, ought we likewise to conclude, that the Americans are a distinct race of peo-

ple? We are not, it is true, obliged to discuss this subject, as it is not within the bounds of positive history; for no history ascends to so remote a period. We ought, nevertheless, to admit, as an established fact, that the Americans, whatever their origin may be, constitute, in the present day, by their physical characters, not less than by their peculiar idioms, a race essentially different from the rest of mankind. The truth of this proposition has been demonstrated by a long series of physiological observations. The natives of this part of the world are, in general, of a large size,^f of a robust frame, and a well proportioned figure, free from defects of organization. Their complexion is of a bronze, or reddish copper hue—rusty-coloured as it were, and not unlike cinnamon or tannin. Their hair is black, long, coarse, and shining, but not thickly set on the head. Their beard is thin, and grows in tufts. Their forehead is low, and their eyes are lengthened out, with the outer angles turned up towards the temples; their eyebrows high, their cheek-bones prominent; their nose a little flattened, but well marked; their lips extended, and their teeth closely set and pointed. In their mouth, there is an expression of sweetness which forms a striking contrast with the gloomy, harsh, and even stern character of their countenance. Their head is of a square shape, and their face is broad, without being flat, and tapers towards the chin. Their features, viewed in profile, are prominent, and deeply sculptured. They have a high chest, massy thighs, and arched legs, their foot is large, and their whole body squat and thick set.^g Anatomy likewise enables us to ascertain that in the cranium, the superciliary arches are more strongly marked; the orbits of the eye deeper; the cheek-bones more rounded, and better defined; the temporal bones less curved; the branches of the lower jaw less diverging; the occipital bone not so convex; and the facial line more inclined than among the Mongol race, with which it has been sometimes attempted to confound them. The shape of the forehead and of the vortex most frequently depends on the employment of artificial means;^h but, independently of the custom of disfiguring the heads of infants, there is no other people in the world in whom the frontal bone is so much flattened above.ⁱ Generally speaking, the skull is light.

Such are the general and distinguishing characteristics of all the American nations, with the exception, perhaps, of those who occupy the polar regions at its two extremities.¹ The Hyperborean Esquimaux, as well as the Southern Puelches, are below the middle stature, and in their features and figure present the greatest resemblance to the Samoiedes.^m The Abipones, and still more especially the Patagonians, attain a gigantic height. This strong and muscular constitution of body, together with a tall figure, is in a certain degree met with among the natives of Chili, as well as among the Caribs who inhabit the plains of the Delta of the Oronoco, as far the sources of the Rio-

^a Mylius, de Origine Animalium, et Migratione Gentium, p. 56. Geneva, 1607. Buffon, &c. &c.

^b "Eparpillé," loose, dishevelled. The webs of the feathers of the ostrich, and its congeners, are equal on both sides of the shaft, and not locked into each other as in other birds; hence their wings are unfit for flight.—P.

^c Mastodon?—P.

^d This remark would apply with more force to the fossil elephant of Siberia, which has been even found imbedded in the ice on the shores of the Arctic Sea, and yet is considered as an extinct species. But the mere fact that they are found in unconsolidated and superficial strata is not alone sufficient to prove their recent origin. A large part of the tertiary strata, and nearly all the diluvial strata, are in that state, and yet no human remains have been found in them.—P.

^e "Distincte d'origine," originally distinct.

^f Blumenbach, de Varietate, p. 257.

^g Blumenbach, p. 146. 183. 194. 233. Humboldt, Essai Pol. sur la Nouvelle Espagne, tom. I. p. 381; ed. in 8vo. Felix de Beaujour. Aperçu des Etats-Unis, p. 173.

^h Blumenbach, p. 218.

ⁱ "Déprimé en arrière."

^k A. de Humboldt, tom. I. p. 397, 398.

¹ G. Forster, Voyage aux côtes nord-ouest de l'Amérique, III. 65 Uloa, Notice Hist. et Phys. sur l'Amer. Merid. II. Vater on the Population of America, 62 and 63.

^m Hearne, Voyage à l'Océan du Nord 157. Charlevoix, 45.

Blanco,^a and amongst the Arkansas, who are esteemed among the handsomest savages of this continent.^b

All reasoning upon the causes of the variety of colours of the human skin, are here at variance with observation: because the same copper or bronze hue is, with some slight exceptions, common to almost all the nations of America, without the climate, the situation, or the mode of living, appearing to exercise the slightest influence. Will the Zambos, formerly denominated Carribbeans, of the Island of St. Vincent, be cited in opposition to this opinion? They exhaled, in fact, that strong and disagreeable odour which seems to belong peculiarly to the negro.^c Their blackish skin, presented that silky softness to the touch, which is so particularly observed among the Caffres; but they were descended from a mixture of the natives with the African race.^d The true Carribbeans are red.

The colour of the natives of Brazil and of California is deep,^e although the latter inhabit the temperate zone, and the former live near the tropic. The natives of New Spain, says M. de Humboldt,^f are darker coloured than the Indians of Quito and of New Grenada, who inhabit a precisely analogous climate. We even find that the tribes dispersed to the north of the Rio Gila, are browner than those that border on the kingdom of Guatimala. The people of the Rio Negro are darker than those of the Lower Oronoco, yet the banks of the former of these two rivers enjoy a cooler climate. In the forests of Guiana, especially near the sources of the Oronoco, there exists several tribes of a whitish complexion, who never have mingled with Europeans, and are surrounded by other tribes of a dark brown.^g The Indians who, in the torrid zone, inhabit the most elevated table-lands of the Cordilleras of the Andes: these who under the 45° of south latitude, live by fishing in the islands of the Archipelago of Chonos, have a complexion as much copper-coloured as they who cultivate under a burning sun the banana in the narrowest and deepest valleys of the equinoctial regions. To this it must be added, that the Indians who inhabit the mountains are clothed, and were so long before the conquest, while the aborigines that wander on the plains are perfectly naked, and, consequently, are always exposed to the perpendicular rays of the sun. Every where, in short, it is found that the colour of the American depends very little on the local situation which he actually occupies;^h and never, in the same individual, are those parts of the body that are constantly covered, of a fairer colour than those that are in contact with a hot and humid air. Their infants are never white when they are born; and the Indian Caciques, who enjoy a considerable degree of luxury, and who keep themselves constantly dressed in the interior of their habitations, have all the parts of their body, with the exception of the palms of their hands and the soles of their feet, of the same brownish red, or copper colour.

This deep tint continues to be met with as far as the remotest coast that borders on Asia. It is only under 54° 10' north latitude, at Cloak bay, in the midst of Indians with a copper-coloured skin, and with small and very long eyes,

that a tribe is thought to have been distinguished, who have large eyes, European features, and skin of a lighter colour than that of even our own peasants. Michikinakou, the chief of the Miamis, spoke to M. Volneyⁱ of Indians in Canada, who only become brown by exposure to the sun, and by rubbing their skin with fat and the juices of herbs. According to Major Pike,^k the intrepid Menominies are distinguished by the beauty of their features, by their large and expressive eyes, and by a complexion of a clearer tint than any of the other bands of the Chippeways. The expression of their countenance at once breathes sweetness, and a noble independence. They are all of them finely formed, and are of a middle stature. The Li-Panis,^l who, to the number of about 800 warriors, wander from the banks of the Rio Grande to the interior of the province of Texas, in New Mexico, have light hair, and, in general, are fine looking men. According to Adolphus Decker,^m who, in 1664, accompanied the Dutch admiral PErmitte round Cape Horn, people are likewise met with at Terra del Fuego, who are born white, but who paint their bodies red and other colours. These trifling anomalies, however well authenticated, would only tend still more strongly to prove, that, notwithstanding the variety of climate and elevation inhabited by the different races of mankind, nature never deviates from the laws under which she has acted for many thousand years.ⁿ

The beard, which travellers formerly refused to the Americans, is at last restored and confirmed to them in the present day. The Indians who inhabit the torrid zone of South America, have generally a small beard, which becomes larger by shaving. Still, however, there are many individuals who have neither beard nor hair on any part of their person except their head. Galeno^o informs us, that among the Patagonians there are many old men who have beards, although they are short and thin. Almost all the Indians in the environs of Mexico, wear small mustachios, which modern travellers have likewise discovered among the inhabitants of the north-west coast of America. When we collect together, and compare all these different facts, it appears a conclusive inference that the Indians have a larger quantity of beard, in proportion to their distance from the equator. Besides, this apparent want of beard is a distinguishing feature which does not exclusively belong to the Americans. Many hordes of eastern Asia, the Aleutians, and, especially, some nations of African negroes, have so very little beard, that one might almost be tempted to deny altogether its existence. The negroes of Congo and the Caribs, two remarkably robust races of men, who are often of a colossal size, prove that it is nothing more than a physiological dream to look upon a beardless chin as a certain indication of degeneracy and physical weakness in the human species.

These physiological characters undoubtedly, establish a close affinity between the Americans and the Mongol race, that inhabits the northern and eastern parts of Asia; as well as the Malays, or the fairest of the natives of Polynesia, and of the other archipelagos of Oceanica. This

^a A. de Humboldt, I. 384.

^b Charlevoix, VI. 165.

^c Thibault de Chanvalon, Voyage à la Martinique, p. 44. Biot, Voyage de la France equinoxiale, 352. Blumenbach, p. 180 and 181.

^d Leblond, Voyage aux Antilles, tom. I. chap. 9.

^e Blumenbach, 147.

^f L. c. II. chap. VI. passim.

^g Humboldt, I. c. I. p. 386.

^h Humboldt, I. c. I. p. 387.

ⁱ Tableau des Etats-Unis, t. II. p. 435.

^k Voyage, I. 151.

^l Idem. II. 145.

^m Laborde, Hist. des Navig. I. 244. bis.

ⁿ "Du type auquel elle s'est assujettie depuis des milliers d'années," from the type (or particular mode of conformation) established many thousand years since; i. e. that the original races of mankind are not essentially modified by the influence of climate.—P.

^o Viaje al Estrecho de Magellanes, p. 331.

resemblance, however, which does not extend beyond the mere colour, cannot apply to the more essential parts—the cranium, the hair, and the profile. If, in the system of the unity of the human species, the Americans be considered as a branch of the Mongol race, it must be supposed that, during an almost countless succession of ages, it has been separated from its parent trunk, and subjected to the gradual influence of a peculiar climate.

Next to physiological characters, language is the most indisputable proof of the common origin of different nations. It is from the languages of America that the most positive indications^a have been supposed to be derived of that emigration of the people of Asia, to which the population of the new world has been ascribed. Mr. Smith Barton was the first who gave any thing like consistence to this hypothesis, by comparing together a great number of different American and Asiatic idioms.^b These analogies, as well as those which have been collected by the Abbé Hervas,^c and M. Vater,^d are, no doubt, too numerous to be looked upon as the mere result of chance; and yet, after all, as M. Vater remarks, they prove nothing beyond single communications, and partial emigrations. Of geographical connexion, they are almost completely destitute; and, without this concatenation, how is it possible to deduce from them any rational conclusion?

We have revised the researches of the three above named learned individuals, and although we have not any very extensive materials at our disposal, we have obtained results which, at one time, led us to believe, that we were on the point of demonstrating, as an historical truth, the entirely Asiatic origin of the languages of America.

We have, in the first place, discovered the undeniable geographical connection of many leading words, which have been propagated from Caucasus and the Ural mountains, to the Cordilleras of Mexico and Peru. Nor is it to be imagined that these are mere syllables, which we force into a resemblance by dint of etymological dexterity; for, they are entire words, disfigured only by terminations, or inflexions of sound, and of which our readers might almost trace the steps of emigration. The most striking objects in the heavens, and on the earth; the most interesting relations of human nature; the first wants of life;—such are the links by which many of the languages of America are connected with those of Asia. Some affinities even, of a more metaphysical description, are observed in the pronouns and numerals. Here, however, the chain is more frequently broken. But, this is not all; during our researches this geographical concatenation has often presented itself under the form of a double and triple line of communication. Sometimes these lines are confounded together at intermediate points, about Behring's Straits and in the Aleutian Islands; but they are distinguished by their terminal links. The number of established analogies is more than double what had been previously observed. In fact, it is not a single denomination of the sun, the moon, the earth, the two sexes, or the parts of the human body, which has passed from one continent to the other; there are two, three, or four different denominations, derived

from languages of Asia, acknowledged to belong to different roots.^e

So many unlooked for affinities—and such, too, as had not been detected by our predecessors, might almost have induced us to maintain, with a certain degree of confidence, the purely Asiatic origin of the principal languages of America. But, sincerely devoted to the interests of truth, we will not attempt to erect an imposing and hazardous assertion on the mere basis of our own observations,—on the contrary, we will candidly avow, that the analogies between the idioms of the two continents, although raised by our researches to a new degree of certainty and importance, merely authorize us to draw the following conclusions:—

1st, Asiatic tribes connected by descent and idiom with the Finnish, the Ostiak, the Permian, and the Caucasian nations, have emigrated towards America, by following the coasts of the Frozen Sea, and by crossing Behring's Straits. This emigration extended to Chili and Greenland.

2d, Asiatic tribes, connected by descent and by idiom with the Chinese, the Japanese, the Ainos, and the Kurilians, have passed into America, by proceeding along the shores of the Great Ocean. This emigration extended at least as far as Mexico.

3d, Asiatic tribes, connected by descent and idiom with the Tungusians, the Mantchoos, the Mongols, and the Tartars, have extended themselves, by following the heights of the two continents, as far as Mexico and the Apalachian mountains.

4th, None of these three emigrations have been sufficiently numerous to efface the original character of the indigenous nations of America. The languages of this continent have received their development, their grammatical formation, and their syntax, independently of all foreign influence.

5th, These emigrations have taken place at an epoch at which the Asiatic nations only knew how to count as far as two, or, at most, three, and had not completely formed the pronouns of their languages.^f It seems probable that the emigrants from Asia brought with them merely dogs, and, perhaps, hogs; and that they knew how to construct canoes and huts; but they did not give any particular name to the divinities which may have been the objects of their worship, nor to the constellations, nor the months of the year.

6th, Some Malay, Javanese, and Polynesian words may have been conveyed to South America by a colony from Madagascar, with greater facility than by the Great Ocean, where the winds and currents do not favour an easterly navigation.

7th, A certain number of African words appear to have been introduced by the same channel as the Malay and Polynesian terms; neither the one nor the other, however, have yet been detected in sufficient numbers to form the basis of an hypothesis.^g

8th, The words of the European languages which seem to have passed into America, are derived from the Finnish and Lettish^h languages; and are connected with the new

^a "The only positive proofs."

^b Smith Barton, *New Views*, &c.

^c Hervas, *Dictionnaire Polyglotte*, p. 38, &c.

^d Vater on the *Population of America*, p. 155.

^e Consult the following *Table of the Geographical Connexion of the Languages of America and Asia*.

^f See the numbers and the pronouns in the table.

^g See the note at the end of the table.

^h A dialect of Lithuania, spoken in Riga, Courland, Jager, and Livonia. *Zeitungs*, cap. 684. [The Lettish or Lettonian languages or dialects form a peculiar family, considered by Adelung as intermediate between the Teutonic and Slavonic, formerly spoken along the southern shores of the Baltic, from the Vistula to the Dwina, now confined to Livonia and Courland, and a few districts in E. Prussia and N. Lithuania.—P.]

continent by the Permian, Ostiak, and Yukagir languages. Nothing in the Persian, German, or Celtic; nothing in the Shemitic^a languages, or those of western Asia; nothing in those of northern Africa, indicates former emigrations towards America.

This is the result of our researches and of those of our predecessors. Some Asiatic idioms have penetrated into America; but the general aggregate of the languages of this continent—like the race of people by which they are spoken—presents a distinct and original character. We will now proceed to consider their general affinity.

Among the prodigious number of very different idioms which are met with in the two Americas, some of them extend themselves over a vast expanse of country. In South America, Patagonia and Chili appear, in some measure, to possess only one single language. Dialects of the language of the *Guaranis* are diffused from Brazil to the Rio Negro, and even, by means of the *Omagua* idiom, as far as Quito itself. There is an analogy between the languages of the *Lule* and of the *Vilela*; and a still greater between those of *Aymara*^b and of *Sap'bocona*, which decidedly have almost the same numeral terms. The *Quichua* language, the principal one of Peru, partakes equally with those last mentioned in many numeral terms, exclusive of the analogies which it offers with the other languages of the neighbouring country. The idiom of *Maypure* is intimately connected with those of *Guipunavi* and *Caveri*. It has likewise considerable affinity with the *Avanais*, and has given rise to the idioms of *Meepure*, of *Parene*, of *Chirrupa*, and of many others that are spoken on the banks of the Rio Negro, the higher *Oronoco*, and the *Amazon*.^c The Caribs, after having exterminated the *Cabres*, extended their language with their empire, from the equator to the *Virgin* islands. According to the assertion of a missionary, the *Galibi* language enabled him to communicate with all the natives of this coast, the *Cumangoles* alone excepted.^d Gili considers the Caribbean as the parent language of twenty others, and particularly of that of *Tamanaca*, by which he was able to make himself understood almost every where on the lower *Oronoco*.^e The *Saliva* language is the original of the *Ature*, *Piaroa*, and *Quaqua* idioms; and the *Taparita* comes from the *Otomaca*.

In North America, the language of the *Aztecs* extends from Lake Nicaragua to the 37th degree, along an extent of four hundred leagues.^f It is less sonorous, but fully as rich as that of the *Incas*. The sound *tl*, which, in the *Aztec*, is only added to nouns, is met with in the idiom of *Nootka* as the termination of verbs. In the idiom of *Cora*, the principal forms of the verb are similar to the *Aztec* conjugations, and the words present some affinities.^g After the Mexican, or *Aztec* language, that of the *Otomites* is the one that is most generally spoken in New Spain. But, besides these two principal languages, there are, between the isthmus of Darien and the 23d degree of latitude, a score of others, to fourteen of which we are already in possession of very complete grammars and dictionaries. The greater number of these languages, far from being

mere dialects of one only, are at least as different from one another as the Greek is from the German, or the French from the Polish. It is only between the *Huastec* idiom and that of *Yucatan*, that some resemblance is discovered.

New Mexico, California, and the north-west coast, form a region which is still but little known; and it is precisely from these that Mexican tradition derives the origin of many nations. The languages of this region would constitute a very interesting subject of research; yet we scarcely possess more than a vague idea of them. There is a great conformity of language between the *Osages*, the *Kansas*, the *Ottos*, the *Missouris*, and the *Mahas*.^b The guttural pronunciation of the fierce *Sioux*, is common with the *Panis*.ⁱ The language of the *Appaches* and the *Panis* extends from Louisiana to the sea of California.^k The *Estenes* and the *Runselen*, in California,^l likewise speak a widely extended idiom.

The *Tancards*, on the banks of the Red River, are remarkable for a peculiar clucking sound; and their language is so poor that they express one half of their ideas by signs.^m

In the southern provinces of the United States, as far as the Mississippi, there is an immediate affinity between the idioms of the *Choctaws* and of the *Chickasaws*, which have likewise some appearance of being connected with that of the *Cherokees*. The *Creeks* or *Muskogees*, and the *Catawbias*, have borrowed words from them. Farther to the north, the once powerful tribe of the *Six Nations* speaks one single language, which, amongst others, forms the dialects of the *Senecas*, *Mohawks*, *Onondagoes*, *Cayugas*, *Tuscaroras*, *Cochnewagoes*, *Wyandots*, and *Oneidas*. The numerous *Nadowessians* have a separate idiom. The dialects of the *Chippaway* language are common to the *Penobscots*, the *Mahicannis*,ⁿ the *Minsis*,^o the *Narragansets*, *Naticks*, *Algonquins*, and *Knistenaux*. The *Miamis*, with whom *Charlevoix*^p classes the *Illinois*, also borrow from them some words and forms. Lastly, on the confines of the *Knistenaux*, in the most remote part of the north, the *Esquimaux* are met with, whose idiom extends from Greenland to *Oonalaschka*.^q Even the language of the *Aleutian* islands appears to possess an intimate resemblance with the dialects of the *Esquimaux*, in like manner as these do to the *Samoiede* and *Ostiak*. In the midst of this belt of polar nations—resembling each other in language as well as in complexion and form—we find the inhabitants of the coasts of America, at *Behring's Straits*, constituting, with the *Tchuktchis* in Asia, an isolated family, which is distinguished by a particular idiom, and a more imposing figure, and, in all probability, originating from the new continent.

This great number of idioms proves that the greater portion of the American tribes have long existed in that savage solitude in which they are still plunged. The family, or tribe, that wanders in the forests, engaged in the chase, and always armed against other families, or other tribes, whom they are afraid of encountering, necessarily invent words of command, and rallying expressions, in fact, cant terms

^a See vol. I. p. 201.

^b See p. 303.

^c Vater, p. 141.

^d Pelleprat, in the *Galibi Dictionary*, p. vii.

^e *Dict. Polyglotte d'Hervas*.

^f *Humboldt, Essai Polit.* t. II. p. 445.

^g *Hervas, Saggio Pratico di Lingue*, art. IV. p. 71.

^h "Mahaws;" O'Mahas.

VOL. II.—NOS 73 & 74.

ⁱ Pawnees.

^k *Pike's Voyage*, French translation, t. II. p. 95. 218. 258, &c

^l See page 265.

^m *Pike*, II. 159.

ⁿ *Mohegans*.

^o *Munsees*.

^p *History of his Voyage*, VI. 278. (Fr.)

^q *Cook's Second Voyage*, IV.

of war, which serve alike to guard them from sudden surprise and from treachery. Thus, the Menominies, a tribe of upper Louisiana, speak so singular a language, that no white has ever been able to learn it. All of them, however, understand the Algonquin, and make use of it in their negotiations.^a

On the other hand, some of the American languages present so artificial and ingenious a composition, that one feels irresistibly disposed to ascribe the invention of them to some ancient civilized nation. I do not mean nations civilized to the modern scale, but such as the Greeks were in the time of Homer; having their moral ideas developed, their sentiments elevated, and their imagination vivid and cultivated; in short, who had sufficient leisure to yield themselves up to meditation, and to form abstract ideas.

It is on the formation of the verb, that the inventors of the American languages have principally exercised their genius. In almost all the idioms, the conjugation of this part of speech tends to mark, by particular inflexions, each particular relation between the subject and the action, or between the subject and the things by which it is surrounded, or more generally speaking, the circumstances in which it is placed. It is thus that all the persons of the verbs are susceptible of assuming particular forms, for the purpose of expressing the pronominal accusatives, which may be attached to them as an accessory idea, not only in the languages of Quichua and of Chili, which differ totally from one another, but also in the Mexican, the Cora, the Totonaca, the Natick, the Chippeway-Delaware, and the Greenlandish.

This astonishing uniformity in so singular a method of forming the conjugations, from one end of America to the other, greatly favours the supposition of a primitive people, the common parent of the indigenous American nations. Nevertheless, when we call to mind that nearly similar forms exist in the language of Congo, and in the Basque,^b which, in other respects, have no affinity whatever, either with one another or with the American idioms, we are compelled to look for the origin of these analogies in the general nature of the human mind.

Still other grammatical refinements complete the astonishment which is excited by the languages of America.

In the different forms of the idioms of Greenland, Brazil, and the Betoï, the conjugation is changed when they speak negatively; the sign of negation is interpolated in the Moscan and the Aruwac, just as it is in the Turkish language. In all the American languages, the possessive pronouns are formed of sounds annexed to the substantives either at the commencement or the termination, and which differ from the personal pronouns. The Guarani, Brazilian, Chiquito, Quichua, Tagalian, and Mantchoo languages, have a pronoun plural of the first person, *we excluding* the third person to whom the conversation is directed, and another which comprehends this third person in the discourse. The Tamanac idiom is distinguished from the other branches of the same language, by an extraordinary copiousness in the indicative forms of the tense. In the same idiom, and in those of the Guaicures, and of the Huastecs, as well as in the Hungarian, the neuter verbs have par-

ticular inflexions. In the Aruwac and Abipon idioms, as well as in the Basque and Phœnician languages, all the persons of the verb, with the exception of the third, are marked by pronominal prefixes. The Betoï idiom is distinguished by terminations of gender, expressed by *os*, which are wanting in all the other languages of America.

If the history of American languages lead us only to vague conjecture, will the traditions, the monuments, the manners, and the customs of that country, furnish us with more satisfactory information!

When the Europeans made the conquest of the New World, its civilization was concentrated in some parts of the great chain of plateaus and of mountains. Anahuac contained the despotic state of Mexico or Tenochtitlan, with its temples bathed in human blood, and Tlascalala inhabited by a republican people not less superstitious. The *Zaques*, a species of pontiff-kings, governed from the interior of the city of Condinamarca, the mountains of Terra Firma, while the children of the Sun reigned over the valleys of Quito and Cuzco. Within these limits, the traveller still meets with numerous ruins of palaces and temples, of baths and houses of public entertainment.^c Among these monuments, the *Teocalli* of the Mexicans, alone indicate an Asiatic origin. They consist of pyramids, surrounded by others of a smaller size, called *Sho-Madon* and *Sho-Dagon*, in the Birman Empire, and *Pkah-Ton*, in the kingdom of Siam.

Other monuments, however, speak a language which, to us, is altogether unintelligible. The figures, in all probability hieroglyphical, of animals and instruments, engraved on rocks of sienite, in the vicinity of the Cassiquari; the camps, or square forts, discovered on the banks of the Ohio, furnish us with no evidence whatever. The learned of Europe have never heard any thing more respecting the inscription in Tartar characters, said to have been discovered in Canada, and sent to the Count Maurépas.^d

Other monuments of a very doubtful nature are mentioned. The paintings of the Toltecs, for example, the ancient conquerors of Mexico, clearly indicated, say they, the passage of a great arm of the sea,—an assertion which, now that the documents have disappeared, is calculated to inspire us with very little confidence.^e As to the Mexican paintings that are still met with, they possess so vague and uncertain a character, that it would be rash to consider them in the light of historical monuments.

Manners and customs depend too intimately on the general qualities of the human mind, and on circumstances that are alike common to many nations, for us to adopt them as the basis of a historical hypothesis. People that subsist by the chase and by fishing, must necessarily have the same manner of living. Although the Tunguses eat their meat raw, and merely dried in the smoke; although they take a pride in puncturing the cheeks of their children with lines and figures of a blue or black colour; although they can detect the traces of their game on the smallest tuft of bent grass;—these, after all, are merely the characteristic features of every nation that is born and educated under the same circumstances. It is, doubtless, a little more remarkable, that the Tungusian and American women, should equally have the custom of laying their infants naked in a heap of rotten wood reduced to powder.^f

^a Pike, Vol. I. p. 210.

^b Vater, p. 210.

^c A. de Humboldt, *Vues et Monumens des Cordillères*.

^d A. de Humboldt, *Ansichten*, p. 79.

^e Botturini, *Idea d'una Storia di Messico*, quoted by M. Vater.

^f Georgi, *Peuples de la Russie*, p. 324. Long's *Travels in Canada*, p. 54.

The same wants, nevertheless, and the same local circumstances, will explain even this resemblance. It is also worthy of remark, that, like the Americans, the ancient Scythians were in the habit of scalping their enemies; that is to say, of taking away the skin with the hair from the upper part of the head;^a although, no doubt, ferocity of disposition may have every where excited mankind to the same excesses. A certain number of more important analogies connects the religious and astronomical system of the Mexicans and the Peruvians with those of Asia. In the calendar of the Aztecs, as well as in that of the Kalmucs and Tartars, the months are designated by the names of animals.^b The four great feasts of the Peruvians coincide with those of the Chinese. The Incas, like the Emperors of China, cultivated a certain extent of ground with their own hand. The hieroglyphics and little cords in use amongst the ancient Chinese, recal in a striking manner the figured writing of the Mexicans and the *Quipos* of Peru. In a word, the whole political system of the Peruvian Incas, and of the *Zaques* of *Condinamarca*, was founded on a union of the civil and ecclesiastical powers in the person of an incarnate Deity.^c

Without attaching to these analogies any decided importance, we may remark, notwithstanding, that America, by its customs, not less than its languages, manifestly proves the former existence of communications with Asia. But these communications must have been anterior to the development of the creeds and mythologies actually prevailing amongst the Asiatic nations at the present day. Were this not the case, the appellations of some of their divinities would necessarily have been conveyed from one continent to the other.

No American tradition whatever ascends to the incalculably remote period of these communications. The people of South America have almost no historical remembrances. The traditions of the northern nations go no farther than merely assigning that region, in which the Missouri, the Colorado, and the Rio del Norte, take their rise, as the native country of a very great number of tribes.

In general, from the seventh to the thirteenth century, the population appears to have been continually flowing back towards the south and east. It is from the regions situated to the north of the Rio Gila, that those nations of warriors issued, who, one after the other, inundated the country of Anahuac. The hieroglyphical pictures of the Aztecs, have transmitted to us the remembrance of the principal epochs connected with the migration of the American people. This migration bears some analogy with the one which, in the fifth century, plunged Europe into a state of barbarism, of which, even in the present day, we still experience the fatal consequences in many of our social institutions. The nations that traversed Mexico, left behind them, on the contrary, evident traces of culture and civilization. The Toltecs appeared there, for the first time, in the year 648; the Chichimecs, in 1170; the Nahuatlacs, in 1178; the Acolhuacs and the Aztecs, in 1196. The Toltecs introduced the cultivation of Indian corn and of cotton. They constructed towns and roads, and,

above all, those great pyramids that still remain the objects of our admiration, the faces of which are very accurately adjusted to the four points of the compass. They were acquainted with the use of hieroglyphical paintings; knew how to fuse metals, and cut the hardest stones; and had a more perfect solar year than either the Greeks or Romans. The efficiency of their government manifestly proved that they were descended from a people who must themselves have previously experienced great vicissitudes in their social condition.^d Whence, however, was this civilization derived; and where is the country from which the Toltecs and the Mexicans issued?

Traditions and historical hieroglyphics bestow the names of *Huehuetlapallan*, *Tollan*, and *Azilan*, upon the original abode of these wandering nations. Nothing now indicates an ancient civilization of mankind to the north of the Rio Gila, or in the northern regions explored by Hearne, Fidler, and Mackenzie. On the north-west coast, however, between Nootka Sound and Cook's River, in Norfolk Sound and Cox's Inlet, the natives shew a decided taste for hieroglyphical paintings.^e When we advert to the monuments which an unknown people has left in southern Siberia; and compare the epoch of the first appearance of the Toltecs with that of the great revolutions of Asia, during the earliest movements of the Hiongnoux,^f we are tempted to believe that the conquerors of Mexico must have been a civilized nation, that had fled from the banks of the Irtysh, or of the Lake Baikal, to escape from the yoke of the barbarous hordes of the central plateau of Asia.^g

The great displacement of the northern American tribes is established by other traditions. All the indigenous natives of the southern United States pretend to have arrived from the west, after crossing the Mississippi. According to the opinion of the Muskogees, the great people from whom they are descended still inhabit the west. Their arrival, however, cannot be dated earlier than the sixteenth century. The Senecas were formerly their neighbours. The Delawares found on the banks of the Missouri a people who spoke their language.^h According to Mr. Adair, the Choctaws arrived with the Chickasaws, at a period subsequent to the Muskogees.

The Chippewyansⁱ alone have any tradition that seems to indicate their emigration from Asia. They once dwelt, say they, in a country situated very far to the west, from which they were driven by a wicked nation. They traversed a long lake filled with islands and ice-burges. Winter reigned on every side during their passage. They disembarked near the Copper-Mine River. These circumstances cannot possibly be applicable to any thing but the emigration of a people of Siberia, who must have crossed Behring's Straits, or some other unknown strait still more to the north. Yet, notwithstanding this tradition, the language of the Chippewyans is not of a more Asiatic character than the other idioms of America. Their name has no more a place in the immense nomenclature of Asiatic tribes, ancient and modern, than that of the Hurons, which has been so unhappily compared with the *Huïres* of Marco

^a Herod. t. IV. sect. 64.

^b A. de Humboldt, *Vues et Monumens*.

^c Fischer, *Conjectures on the origin of the Americans*; in Pallas, *Nouveaux Mémoires sur le Nord*, t. III. p. 289—322; copied into Scherer, *Recherches Historiques et Géographiques sur le Nouveau-Monde*, Paris, 1777. This long known work has been literally copied in a series of articles inserted in the *Moniteur*, five years ago.

^d Humboldt, *Essai Polit.* t. I. p. 370 and 404.

^e Marchand, *Voyage*, t. I. p. 258. 261. 375. Dixon, p. 332.

^f Huns.

^g Compare Humboldt, *Essai Polit.* t. I. p. 373. II. 502. III. 231.

^h Smith Barton, p. 47.

ⁱ "*Chippewians* or *Chepewayans*," *Chepewyans*.—*Mackenzie*.

Polo, and the *Huiur* of Carpin, who are merely Ouhours.^{a b}

In the last place, these traditions, monuments, and customs, as well as idioms, render it extremely probable that there must once have been invasions of the new continent by Asiatic nations; but, at the same time, every circumstance concurs to throw back the epoch of these events to the darkness of ages anterior to history. The arrival of a colony of Malays, mixed with Madagascars^c and Africans, is a very probable event, but is enveloped in still more impenetrable obscurity. The general mass of the native population of America is indigenous.

After having thus detailed the whole of our researches and our conjectures respecting the origin of the Americans, it would be a source of useless fatigue to our readers, were we to enter into a long analysis of all the opinions that have been advanced on this subject. It suffices to know that every thing has been imagined. The very convenient resource of the dispersion of the Israelites, has been brought forward by a great number of writers, amongst whom only one deserves notice, the Englishman, Adair, who, with considerable erudition, has shown the affinity which exists between the manners of the ancient Hebrews and of the people of Florida and the Carolinas.^d These affinities prove, in general, merely a communication with Asia; and some of them, such as the use of the exclamation *Hallelu yah*, appear to be illusory. The Egyptians have been assigned as the ancestors of the Mexicans, by the learned Huet,^e by Athanasius Kircher, and by an American of erudition, whose vast researches have not been given to the world.^f The astronomical and chronological systems are totally different. The styles of architecture and of sculpture may resemble one another among many nations; and the pyramids of Anahuac bear a closer comparison with those of Indo-China than of Egypt. The Canaanites have been put in requisition by Gomara, in consequence of the feeble analogy with their customs that has been observed in Terra Firma.^g Many writers have maintained the reality of the expeditions of the Carthaginians into America; and we cannot absolutely deny the possibility of such an event.^h We are too little acquainted with the language of this celebrated people, a mixed race of Asiatics and Africans, to assume the privilege of deciding that no trace of an invasion of the Carthaginians really does exist. With a greater degree of certainty we can exclude the Celts, notwithstanding the etymological dexterity made use of to discover Celtic roots in the Algonquin.ⁱ The ancient Spaniards have also very feeble claims; their navigation was exceedingly limited. The Scandinavians have preserved historical documents, which establish the fact of their voyages to Greenland;^k but they do not go farther back than the tenth century, and merely prove that America was already completely peopled—a very powerful ar-

gument in favour of the high antiquity of the American nations. The celebrated Hugo Grotius^l has very awkwardly combined this historical fact with some conjectural etymologies, for the purpose of deriving the population of North America from the Norwegians, who, except in Iceland and Greenland, have left only faint traces behind them in the west.

The purely Asiatic origin of the Americans has met with numerous supporters. The learned philologist Brerewood,^m was, perhaps, the first by whom it was proposed. By the Spanish historians it was only partially admitted.

De Guignes,ⁿ and Sir William Jones,^o conduct into the New World, without much difficulty, the one his Huns and Thibetans, the other his Hindoos. *Fornicl*, whose work we have not been able to consult, was the first to insist on the Japanese being brought forward, who, it is true, may in reality lay claim to a great number of American words. *Forster* has attached a great deal of importance to the dispersion of a Chinese fleet, an event of too recent a date to have produced any great influence upon the population of America.^p

For half a century, the passage of the Asiatics by Bering's Straits, has been raised to the rank of an historical probability by the researches of Fisher, Smith Barton, Vater, and Alexander Humboldt. Yet these learned men have never maintained that all the Americans were descendants of Asiatic colonies.

An intermediate opinion, which unites the pretensions of the Europeans, Asiatics, Africans, and even the South Sea Islanders, has received the sanction of some writers of considerable weight. Acosta^q and Clavigero^r appear as its supporters. The latter insists, with reason, on the high antiquity of the American nations. The indefatigable philologist, Hervas,^s also admits the hypothesis of their mixed origin. It has been learnedly discussed by George Horn.^t This ingenious writer excludes from the population of America the negroes, of whom no indigenous tribe has been discovered in the New World; the Celts, Germans, and Scandinavians, because, amongst the Americans, neither light hair nor blue eyes are to be met with; the Greeks, and Romans, and their subjects, on account of their timidity as navigators; and the Hindoos, because the mythologies of the Americans contain no traces of the dogma of the transmigration of souls. He then deduces the primitive origin of the Americans from the Huns, and Cathayan Tartars. Their migration appears to him to be very ancient. Some Phœnicians and Carthaginians must have been thrown on the eastern coast of the new continent. Still later, the Chinese conveyed themselves thither. Fa-four, king of southern China, he contends, fled thither, to escape the yoke of Kublai Khan; and was followed by many hundred thousand of his subjects. Manco-Capac was also a Chinese prince. This system—a mere tissue

^a Igurs.

^b See History of Geography, Book XIX.

^c "Madegasses."

^d Adair's History of the American Indians, p. 15—220. Garcia, Origen de los Indios del Nuevo-Mundo, liv. III. Valencia, 1607. New edition by Garcia. Madrid, 1729.

^e Huet, de Navig. Salomon.

^f Siguenza, Extract in Equiara, Bibliotheca Messicana. Comp. Humboldt, Vues et Monumens.

^g Gomara, Hist. Indiana, p. 1. p. 41.

^h Garcia, l. c. liv. II. Compomanes, Antiguedad Maritima de Carliago.

ⁱ Vallancey, Antiquity of the Irish Language, &c. &c.

^k "And Newfoundland." See Hist. Geog. Book XVII.

^l Hugo Grotius, de Orig. Gent. American. De Laet, Notæ ad disert. Hug. Grot. Amsterdam, 1643.

^m Inquiry touching the diversity of Languages and of Religions, London, 1654.

ⁿ Mémoires de l'Académie des Inscriptions, t. XVIII. p. 503.

^o Asiatic Researches, t. I. p. 426.

^p History of the Discoveries in the North.

^q Acosta, Historia natural y moral de las Indias, l. I. c. 20.

^r Clavigero, Storia di Messico, t. IV. dissert. 1.

^s Hervas, Saggio pratico delle lingue, p. 36. Vocabulario Poligloto, p. 36.

^t Georg. Hornii, De Originibus Americis, lib. IV. Hag. Com. 1699.

of conjecture when it first appeared, sufficiently harmonises with the facts that have been subsequently observed, and which we have above collected together. Some bold and unhesitating writer has only to seize on these facts, combine them with the hypotheses of Horn, and thus favour the world with the true and authentic history of the Americans.

It is not improbable that, at some future day, America, in the height of her civilization, may in her turn boast that she is the cradle of the human race. Already, two learned individuals of the United States have maintained, that the tribes of the north of Asia may just as readily be descendants of the Americans, as the latter of them.^a

In the present state of our knowledge, the wise will stop short at the probabilities which we have pointed out, without vainly endeavouring to combine them into a system.

N. B.—When the first edition of this work was published in 1817, we were still unacquainted with that volume of *Mithridates*, (Berlin, 1812, Part III. § 23.) which contains the admirable discourse of M. Vater on the languages of America. The interruption of our communications with Germany, prevented us even from knowing that it had appeared. The results of the researches of M. Vater, agree in the most essential points with our own; only he has attended less to the geographical connexions upon which the following table is founded. But his labours furnish many additional arguments in favour of our conjectures, though we cannot properly afford them a place in a system of Universal Geography. Whoever wishes to prosecute the subject farther, will find ample information in the above and the succeeding volume (1817) of *Mithridates*. M. Vater has carefully collected tables of analogous words in the languages of the old and new world. Between the American, Coptic, and Japanese (8); the Malay (11); the Sanscrit (5); the west coast of Africa (20); the Basque (8); the Celtic (19); and the Caucasian languages (9), he points out many similarities. He also demonstrates by a table, the connexion of the Greenlandish and Tehuktchese (26); and in another, the connexion of the Northern Asiatic with the American dialects in general.—The figures in brackets, indicate the number of analogies given for each. Upon the whole, he thinks it a demonstrable fact, “that in the north-eastern parts of America, in Greenland, and on the coast of Labrador; as also to the west of it, as in the vicinity of the Asiatic coast, there dwells a people which is one and the same race with the inhabitants of the north-east coast of Asia, and of the islands lying between the two hemispheres.”—Part III. page 339.

^a Bernard Romans' Natural History of Florida; New-York, 1776. Jefferson's Notes on Virginia, p 162.

^b All the American words are taken from the works, already quoted, of Messrs. Smith Barton, and Vater. The latter has taken them from a great number of printed or manuscript dictionaries. Some had been communicated to him by M. A. de Humboldt.

In these names we have corrected the Spanish and English orthography only as far as was necessary to render the analogy evident. (The French orthography of the author is retained in the translation.)

The connexions that were commenced by Messrs. S. Barton and Vater, and which we have not been able to complete, we have marked with the initials of those learned gentlemen's names. Sometimes, also, we have indicated by points those very remarkable gaps in the connexion of words, whose affinity, however, is indisputable.

The words of the Aleutian Islands, and of the island of Kadjak (Kodiak,) are taken from the vocabularies given by Sauer, in his account of Billings' Voyage.

The Kamtchadale, Yukagir, and Yakut words, are from the same source. The Tunguse, from Sauer, Georgi, &c. The Mantchoo words were communicated to us by M. Julius Von Klapproth. The Jesso or Aino words are taken from a manuscript vocabulary of M. Titsingh. The Japanese words are also from a vocabulary by the same gentleman, in the Memoirs of the Society of Batavia.

The Lieukieu and Birman words are from vocabularies published by M. Klapproth, in his Asiatic Memoirs.

TABLE

Of the Geographical connexion of the American and Asiatic Languages.^b

- The sun*, in New-England, *kone*; in Yakut, *kouini*; in Ougour, *kien*; in Tartar, *koun*; in Awar, or Chunsag, *kko*. Also, in Tartar, *kouyach*; in Kamtchadale, *koua-atch*; in Maypure, *gouie*. In Wogul, *konzai*, the stars; in Ostiak, *kos*.
2. *The sun*, in Chiquito, *souous*; in Mosca, *soua*; in Yakut, *solous*, star; in Mantchoo, *choun*, sun; in Ostiak, *siouma*; in Tehuktchi, *synn*, stars; in Andi, *souvou*; in Wogul, *sowa*, star.—In Sanscrit, *sourya*; in Zend, *shour*.^c
3. *Idem*, in Quichua, *inti*; in Lulean, *inni*; in Aleutian, *in kak*, (the firmament;) in the Tunguse of Okhotsk, *ining*, (day.) In Low Javanese, *ginni*, fire; in Batta, *Iviang*, (God.)
4. *Idem*, in Chippeway, *kesis*; in Mahicanne, *keeschog*; in Tcheremisse, *ketsche* (S. B.)
5. *Idem*, *Nii*, and *néé*, the sun, in Kinai (Russian America,) connects itself with *ne*, day, light, in Birman; *nie*, eye, in Lieukieu; *ne*, eye, in Chilian; *néoga*, eye, or eyes, in Abipon.
- The moon*, in Aztec, *mextli*;^d in Afghan, *maishta*; in Russian, *msiaitsch*; in Awar, *moz*; in Sanscrit, *masi*.
2. *Idem*, in Chili, *couyen*; in Mossa, *cohe*; in Jesso, or Aino, *kounetsou*, (with the article affixed;) in Yukagir, *konincha*; in Esthonian, *kouli*; in Finnish, *koun*.
- The stars*, in Huastec, *ot*; in Tartar, *oda*, (V.)^e
- Idem*, in Chickasaw, *phoutckik*; in Japanese, *fouschi*.
- Idem*, in Algonquin and Chippeway, *alank*; in Kotowze, *alagan*; in Assani, *alak*, (S. B.)
- Heaven*, in Huastec, *tiab*; in Poconchi, *taxab*.....^f in Chinese, *tien*; and, in the dialect of Fo-kien, *tchio*.....; in Georgian, *tcha*; in Finnish, *taïwas*; in Esthonian, *taéwas*; in Courlandish and Pruczian, *debbes*, or *tebbes*; in Lettish and Livonian, *debbesis*.
- The earth*, in Chili, *toue*; in the Friendly Islands, *tougoutou*; in Tagalian, *touna*; in Aino, *toui*; in Japanese and Chinese, *ti*; in Tehukasse, *tchi*.
- Second connexion by the north: in Tunguse, *tor*; in Kittawin, *to*; in Abasgian, or Awchase,^g *toula*; in Altikesek, *tzoula*.
2. *Idem*, in Delaware, *hacki*; in Narraganset, *auke*; in Persian, *chaki*; in Bucharian, *chak*, (S. B.); in Aleutian, *tchekak*; in Kamatchinze, Karagasse, &c. *dscha*.
3. *Idem*, in Peruvian, *lacta*; in Yucatan, *lououn*, (S. B. and V.); in Yukagir, *lévié* and *lifié*, (in the ablative, *leviang*;) in the Finnish of Olonetz, *leiwou*; in Inguschi and Tehetchenghi, *laite*; in Birman, *lai*, country (*campagne*;) in Mexican, *tlali*; in Koliousche, *tlatka*.
4. *Idem*, in Tamanac, *nono*; in Zamuca, *noumi*; in Tchuktchi and Greenlandish, *nouna*, *nounit*; in Koriak, *noutæ-lout*.

The Sanscrit and Malay words, &c. are borrowed from the *Mithridates*. The high and low Javanese, from the Memoirs of Batavia. The Polynesian, from Cook, Entrecasteaux, &c. The Ougour and Afghan words, and those of the Caucasian tribes, the Andi, Awar or Chunsag, Kabutsch, Kasikumuk, &c. &c. from the Memoirs of M. Klapproth.

The Wogul, Ostiak, Permian, and Finnish words, are taken from Vater, Smith Barton, and the *Mithridates*. The Lithuanian, Courlandish, and Pruczian, (or old Prussian,) from a manuscript vocabulary.

^c We may class together with the above the *sounna* of the Goths and Germans,^g the *sol* of the Latins and of the Manni, or Scandinavi ans, anterior to the Goths, (vid. Edda Sæmundina, Alvismål, Strophe 16,) and the *saulous* of the Lithuanians.

^d *Tli* is only a common termination in Mexican, or Aztec.

^e According to what the learned M. Klapproth has informed us, M. Vater ought to be thus corrected: in Mongol', *od-n*. The name of fire, *ot*, in Ouigonie (Ougour?) *od*, in Tartar, may be also connected with the preceding.

^f This immense blank has offered us only one single analogous word, *tiba*, rain, in Yukagir. The resemblance is the more accurate, as *tebbes*, and *debbes*, in the Lithuanian languages, mean the sky, clouds.

^g Abassian or Abklas, a language spoken at the western extremity of Caucasus.—P.

* Germ. *sonne*, Belg. *son*, Eng. *sun*, Dan. *soel*.—P.

Fire, in Brazilian, *tata*; in Muscogulge, *toutkah*; in Ostiak, *tout*; in Wogul, *tat*, (S. B.); in some Caucasian dialects, *tzah*; in Mantchoo, *toua*; in Finnish, *touli*.

Water, in Delaware, *mbi* and *beh*; in Samoiede, *bi* and *bé*; in Kurilian, *pi*, (S. B.); in Tunguse, *bi-alga*, the waves; in Mantchoo, *bira*, river; in Albanian and Epirotic, *oui* and *vie*.

2. *Idem*, in Mexican, *ael*; in Wogul, *agel*, (S. B.)^a

3. *Idem*, in Vilela, *ma*; at Norton-Sound, *moose*; in Tchuk-tchi, *mok*; in Tunguse, *mou*; in Mantchoo, *mouke*; in Japanese, *mys*; in Lieukieu, *minzou*.^b

4. *Idem*, in Tamanae, *nono*; in Zamuca, *noumi*; in Tchuk-tchi and Greenlandish, *nouna*, *nounit*; in Koriak, *noutelout*.

Rain, in Brazilian, *ameu*; in Japanese, *amé*, (S. B.)

Idem, in Algonquin, *kemevan*; in Lesghian, *kema*, (Id.)

Wind, in Vilela, *uo*; in Omagua, *ehuétu*; in Ostiak, *vot* and *uat*, (V.)

It may be looked upon as approaching *wad*, wind, in Pehlvi; *waihou*, Sanscrit; *wiatr*, Slavonic; *vetr*, Icelandic; *vavouhr* and *hvituhth*, in two dialects of Scandinavia, now lost.^{c d}

Air, in Delaware, *awonou*; in Miami, *awaunweeh*; in Kirghis and Arabic, *awa*, (S. B.); in Sanscrit, *avi*.—In Iotic, a dialect of Scandinavia, *api*.^e

Year, in Peruvian, *huata*; in a Tchuk-tchi dialect, *hiout*; in Ostiak, *hoet* (S. B.); in Albanian, *viet*; in Lieukieu, *wadii*, month.—In Hindostanee, *wakht*, time.^f

Mountain, in Araucanian, *pire*, (a particular name of the Andes).....In Yukagir, *pea*; in Ostiak, *pelle*; in Andi, a Caucasian dialect, *pil*.—In Sanscrit, *pura*. The *Pyrenees*.

Field, in Haytian, *conouco*; in Yakut, *chonou* (V.); in Japanese, *kouni*, a district.—In Chinese, *koue*, kingdom, region.

Height, in Acadian, *pandemou*; in Mordwin, *pando*; in Mok-schan, *panda* (S. B.); in Yukagir, *podannie*, high, elevated.

Bank, in Ottoman, *cahti*; in Yakut, *kitto*; in Laplandish, *kadde*; in Aino, *kada-schma-kodan*, an inclined bank.

Sea, in Araucanian, *languen*; in Tunguse, *lam*; in Malay, *laout*.....In the Edda-Sæmundina, *la* and *lagi*.^g

Lake, in Hungarian, *to*, and *ferto*; in Aino, *to*, a great lake; in Tchuk-tchi, *toutou-touga*, a gulf of the sea; in Mexican, *atoyatl*, lake; in Lule, *tooson*.

River, in Greenlandish, *kook*; in Tchuk-tchi, *kiouk*; in Kamtchadale, *kiigh*; in Samoiede, *kyghe* (V.); in Southern Chinese, *kiang*; in Kinaitzi, *kytnu*.

2. *Idem*, in Natchez and Algonquin, *missi*, or *messé*, (Missisipi, Miss-Ouri, Missi-Nipi, &c. &c.) in Japanese, *mys*, water; in Lieukieu, *minzou*.

Tree, in Mossa, *ioukhoukhi*; in Ostiak, *ioukh* (V.); in Yukagir, *kiokh*, plant.

Wood, in Chippeway, *mittic*; in Samoiede, *mide* (S. B.)

Forest, in Nadowessi, *ochau*; in Zamuca, *ogat*; in Tartar, *agaz* (V.); in Kadjak, *kobogak*, a tree; in Afghan, *oha*,^h (see grass.)

2. *Idem*, in Ottoman, *tæhe*; in Delaware, *tachan*, or *tauhon* (V.); in Yakut, *tya*; in Japanese, *tiitini*, wood.—In Mongol, *taëri*, pine.—In the Friendly Islands, *tohou*, a species of tree.

3. *Idem*, in Guarani, *caa*; in Tupi, *cagua*; in Omagua, *cava*; in Vilela, *cokuit*; in Maya, *k'aas*; in Malabar, *kadd*. All these words are related to the word for grass, second series.

Bark, in Quichua, *cara*; in Ostiak, *kar*; in Tartar, *kaëri*; in Perman and Slavonic, *kora*; in the Finnish of Olonetz, *kor* (V.)

Stone, rock, in Carib, *tebou*; in Tamacian, *tepou*; in Galibi, *tobou*; in Koliouche, *te*, or *tete*; in Yaoi, *tabou*; in Les-

ghian, *teb*.—In Aztec, *tepell*, mountain, rock; in Turkish, *tepe*; in Mongol, *tabakhan*, point of a rock.

Grass, in Chiquito, *boos*; in Mongol, *oubousu*; in Kalmuk, *æbæsyn* (V.).—In Yakut, *bosok*, a branch.—In Kadjak, *obovit*, plants.—In the Friendly Islands, *bougo*, tree, (see forest, first series.)

Idem, in Omagua, *ca*; in Guaicure, *caa*; in Hindostanee, *gas*; in Kamtchadale, *kakain*, the juniper bush.—In Birman, *â-khâ*, a branch of a tree.

Fish, in Quichua and Chili, *khalloua*; in Cochimi, *cahal*; in Maya, *caih*; in Poconehi, *car*; in Kadjak, *kakhlucuit*; in Koliouche, *chaat*; in a Tchuk-tchi dialect, *ikahluk*; in Jesso, *kara-sacki*, (salmon); in Samoiede, *koual*, and *karre*; in Wogul and Ostiak, *khoul*; in Koibale, *kholla*; in the Finnish of Carelia, *kala*; in Tonquinese, *ca*.

Idem, in Mobima, *bilau*; in Yakut, *balyk*; in Tartar, *baluk*; in Russian, *belouga*.

Bird, in Tamacian, *toreno*; in Japanese, *tori* (V.).—In Hindostanee, *tchouri*.

Goose, in Chippeway, *gah*; in Chinese, *gouhi* (V.).—In Japanese, *gang*.^k—In Mantchoo, *gaskhan*, bird.

Bread, in Chickasaw, *kawtoo*; in Wokkonsi, *ikketau*; in the Ostiak of Pumpokol, *koita*; in Akuscha and Kubescha, *katz*; in Pruczian, *ghicytie*.

Nourishment, in Quichua, *micunnan*; in Otaheitian, and in the Friendly Islands, *maa*; in Asiatic Malay, *macannan*; in Japanese, *mokhi*.....;^l in Inguschi, in Tuscheti, *mak*, bread, or cake; in Altikesek, *mikel*.

Meat, in Mexican, *nacatl*; in Greenlandish, *nekke*; in Tchuk-tchi, *nakka*; in Japanese, *niekf*.....^m

Bone, in Tuscarora, *ohskhêreh*; in Armenian, *oskor*.—*Idem*, in Creek, *ifoni*; in Japanese, *fone* (S. B.)

Blood, in Totonac, *lacañi*; in Tarahumar, *laca*; in Yukagir, *liopkol*; in Hindostanee, *lohou*.

Pig, in Tarahumar, *cotschi*,ⁿ in Chippeway, *cocootsche*; in Mongol, *khokhai*; in Cathayan, *khai*.^o

Dog, in Carib, *caicoutchi*; in Tarahumar, *cocotschi*; in Kamtchadale, *kossa*; in Kasikumuk, *ketschi*.—*Idem*, in Cherokee, *keira*; in Ostiak, *koira*.—*Idem*, in Andi, Awar, and other Caucasian idioms, *khoi*; in Birman, *khoui*; in Aleutian, *ouikouk*.

Boat, in Galibi, *canoua*; in Haytian, *canoa*; in Aino, according to La Peyrouse, *kahani*; in Greenlandish, *cayac*; in Russian America, *the same*; in Samoiede, *cayouc*; (*kahn*, in German, *canoe*, Eng. *canot*, Fr.)

House, in Mexican, *calli*.....; in Wogul, *kol* and *kolla*; in the German and Scandinavian languages, *hall*.

Idem, in Lulean, *ouya*; in Aleutian, *ouladok*; in Ouigour, *ouyon*; in Tartar, *oui*.—*Idem*, in Chickasaw, *chookka*; in Kadjak, *cheklicuit*; in Japanese, *choukoutche*.

Man, in Araucanian, *auca*; in Saliva, *cocco*; in Koliouche, *ka* and *akkoeh*; in Jesso, *okkai*; in Yakut, *ôgo* (boy)..... in Guarani, *aca*, head.

Idem, in Acadian, *kessona*; in Ostiak, *kassek*; in Kirghis, *kese*; in Yakut, *kisi*; (S. B.)—In Yakut, *kissæ*, man; *kisa*, virgin, &c.; in Ouigour, *kiischou*.

Woman, in Saliva, *nacou*; in Penobscot, *neeseewoek*; in Pot-tawattami, *neowah*; in Tchuk-tchi, *newem*, woman in general, *newaitchit*, young woman, girl; in Samoiede, *neu*; in Ostiak and Wogul, *ne*; in Mordwin, *netscha*; in Akuscha, *netsch*; in Kubascha, *nem*; in Polonese, *niewiasta*.—In Zend, *naeré*; in Pehlvi, *naerik*.—In Hebrew, *nekebah*.

^a These words appear inaccurate. They ought to be, in Mexican, *atl*; in Wogul, *atil*; the great river, *aqua*, *ua*, *ark*, &c. &c.

^b M. Vater discovers these American words in the *movi* of the Copts, and in the Mauritanian *ma*. The resemblance is perfect; but, we ought to be told what M. Vater understands by Mauritanian. As to the Copt, it has received many words from the Asiatic languages.

^c Dan *veir*, Germ. *wetter*, Belg. *weder*, Eng. *weather*.—P.

^d Edda Sæmundina, t. I. p. 264. Alvismál, Strophe 20.

^e *Ibid*, p. 265. The Iotes were anterior to the Goths. They were giants,—the Anakim, the Patagonians of the north.

^f The root of all these words appears to be Arabic.

^g See the register of words in the Edda Sæmundina. The word also signifies all fluids in general. *Liquor*, *liquidus*.

^h Many of these words approach to the *eiche* of the Germans, and the *oak* of the English.

ⁱ Russ. *gous*, Dan. *gaus*, Eng. *goose*.—P.

^k Germ. *gans*, Eng. *gander*, L. *anser*. The resemblance in this and the preceding note is not a little remarkable, even in the last example, which differs only in wanting the initial guttural.—P.

^l This gap in the chain, on the northern side, naturally arises from the northern hordes being ignorant of the use of bread, and of aliments prepared by art.

^m The corresponding words, in all the intermediate languages, differ altogether from these. The same remark is applicable to the next word.

ⁿ L. *os*.

^o Fr. *cochon*.

^p Ulagh-Bei, Epochæ Cathaïorum, ed. grav. p. 6. Klaproth. Mines, d'orient.

2. In Mahacanni, *weewon*; in the Caroline and Friendly Islands, *wefaine*; in Low Javanese, *aweewe*.^a
Father, in Mexican, *tatli*; in Moxa, *tata*; in Otomite, *tah*; in Poconchi, *tat*; in Tuscarora, *ata*; in Greenlandish, *atat*; in Kadjak, *attaga*; in Aleutian, *athan*; in Tehuktchi, *atta* and *attaka*; in Kinai, *tadak*; in Turkish and Tartar, *atta*; in Japanese, *tete*; in Sanscrit, *tada*; in the Finnish of Carelia, *tato*; in Wallachian, *tat*.^b

2. *Idem*, in Lulean, *pe*; in Koriak, *pepe* (V.).—In Jesso, *fanne*; in Birman, *pha*; in Siamese, *po*; in Sanscrit, *pida*.^c

3. *Idem*, in Vilela, *op*; in Kotowzi and Assanian, *op* (V.).^d

4. *Idem*, in Quichua, *yaya*; in Yakut, *aya*; in Chiquito, *iyai*; in Shebay, *haia*; in Eslène (Escelen), *ahai* (V.).—In Aleutian, *athau*; in Yakut, *agam*, or *ayam*; in Votiak, *ai*; in Permian and Sirjanian, *aie*.

Mother, in Vilela, *nane*; in Maypure, *ina*; in Cochimi, *nada*; in Mexican, *nantli*; in Pottawattami, *nana*; in Tuscarora, *anah*; in Pennsylvania, *anna*; in Greenlandish, *ananak*; in Kadjak, *anagah*; in Kinai, *anna*; in Aleutian, *anaan*; in Kamtchadale, *naskh*; in Tunguse, *anee*; in Yukagir, *ania*; in Tartar, *anakai* and *ana*; in Inguschi, *nana*.

Son, in Vilela, *inake*, (son and daughter); in two Tehuktchi dialects, *iegnika* and *rinaka*; in Tagalian and Malay, *anak*. The other intermediate links are wanting.

2. In Carib, *kachi*; in Teheremisse, *keschi* (S. B.).—In Yakut, *kisim*, daughter; in Kinai, *kisna*, *kissun*, daughter; *kissikoa*, little girl. These words are connected with those for *man*, second series.

3. *Idem*, in Penobscot, *namon*; in Samoiede, *niama* (S. B.).^e

4. *Idem*, in Maypure, *anis*; in Algonquin and Chippeway, *ianis* (V.) in Yukagir, *antou*.

Brother, in Araucanian, *penni*; in Quichua, *pana*; (in Kadjak, *pani-goga*, daughter; in Tehuktchi, *panika*, daughter; in Yukagir, *pa-outch*, sister;) in Lieukieu, *sien-pin*, eldest brother; in Hindostanee, *bein*, sister; in Zingari, *pæn*, *idem*.^f

2. *Idem*, in Chippeway, *onnis*; in Algonquin, *anicñ*; in Japanese, *ani*, eldest brother; *ané*, eldest sister.

3. *Idem*, in Quichua, *huaquey*; in Tunguse, *aki* (V.).—In Mantchoo, *ago*; in Tartar, *agha*; in Ouigour, *aká*; in Tehuktchi, *aki*, younger brother; in Koliouche, *achaik* and *achaica*, brother, (*achkik*, sister;) in Kinai, *agala*, elder brother.

Sister, in Onondaga, *akzia*; in Jesso, *zia*, elder sister; in Yakut, *agassim*; in Lesghian, *akiessio*.

Child, in Quichua, *huahua*; in Omagua, *idem*; in Yukagir, *oua*; in Awar, *uassa*, and *uas*; in Wogul, *uassum*.

Head, in Guarani, *aca*; in Omagua, *iaca*; in Yukagir, *yok*.

Eye, in Abipon, *neoga*; in Mocobi, *nicota*; in Cubaya, *ni-gue*; in Peruvian, *nahui*; in Kinaitzi, *nagak*; in Chili, *ne*; in Catawba, *neetouth*; in Kamtchadale, *nanit*; in Lieukieu, *nie*; (in Boman or Birman, *ne*, day, light;) in Teheckasse, *ne*; in Mongol, *nitoun*; in Kalmuck, *nidoun*;—In High Javanese, *netra*.

Idem, in Mahicanni, *keesq*; in Seneca, *kakaa*; in Russian America, *kavak*; in Yakut, *kasak*; in Tartar, *kys*; in Ouigour, *kus*.

The throat, in Yukatan, *cal*; in Kalmuck, *chol*; in Esthonian, *kael*, (throat and neck,) (V.).—In Yakut, *kelga*.—In Awar, *kal*, mouth; in Afghan, *chule*.^h

Tongue, in Quichua, *kalli*; in Mongol and Kalmuck, *kelen* and *kyle*; in Permian *kil*; in Esthonian, *keli*; in the Finnish of Carelia, *kelli* (V.).

Tooth, in Chippeway, *tibbit*; in Ostiak, *tibu* and *tewa*; in Samoiede, *tibbe*; in Awar, *ziw*, *zib*, *zabi*; in Birman, *tabu*.

Hand, in Chili, *kou*;..... at Nootka-Sound, *coucou*;.....ⁱ in Ouigour, *kol*; in Kasikumuk, *kuæ*; in Awar, *kuer*; in Kabutsch, *koda*.

Idem, in Delaware, *naschk*; in Akuscha, *nak*.—(S. B.).—In Yukagir, *nogan*.

Ear, in Chili, *pilin*; in Ostiak and Samoiede, *pil*; (S. B. and V.) The intermediate words are unknown.

Belly, in Chili, *pue*; in Votiak, *put* (S. B.) The known intermediate terms differ. Among the Battas of Sumatra, we find *boutoua*; *idem*, in Andi, *bubit*; *idem*, in Hindostanee, *pitch*.

Idem, in Delaware, *wachtey*; in the Finnish of Olonetz, *wat-scho* (S. B.)

Foot, in Tuscarora, *auchsee*; in Kamtchadale, *tchou-atchou* in Yakut, *atauch*; in Japanese, *aksi* and *atschi*; in Ouigour, *ajak*.

Idem, in Carib, *nougouti*; in Miami, *necahtei*; in Yukagir, *noel*; in Samoiede, *nghé*.

Forehead, in Pennsylvania, *hakalu*; in Tuschi (Caucasian) *haka* (S. B.).—In Dido (Caucasian) *haku*, mouth.

Beard, in Tarahumar, *etschagouala*; in Tartar, *sagal*; in Kalmuck, *sachyl* (V.).—In Ouigour, *ssachal*.

Black, in Chili, *couri*; in Aino, *kouni*; in Toukin, *koro*; in Kasikumuk, *chourei*, (night).^k

White, in Lulean, *pop*; in Vilela, *pop*; in Chiquito, *pouroi-bi*; in Zamuca, *pororo*; in Yukagir, *poinnei*.

Idem, in Yucatan, *zac*; in Totonac, *zacaca*; in Mongol, *zagau* (V.)

Red, in Mexican, *costic*; in Kiriri, *koutzou*; in Kadjak, *kou-ightoak*.—In Japanese, *koutsou*, fine, brilliant.

Name, in Greenlandish, *attack*; in Tartar, *at*.—*Idem*, among the Carib women, *nire*; in Mongol, *nyre*; (V.) in Kadjak, *atka*; in Aleutian, *asia*; in Yakut, *aatta*.

Love, in Quichua, *munay*; in Sanscrit, *manya* (V.).—In Teutonic, *minne*; but the intermediate words are wanting.

Pain, in Quichua, *nanay*; in Otomac, *nany*; in Tunguse, *ænan* (V.).—In Aleutian, *nanalik*.

God, in Quichua, *pacha-camac*; in Japanese, *kammi*, (*kham*, in Sanscrit, Malabar, and Multanian, the sun.)

Idem, in Aztec, *teo*; in Sanscrit, *deva*; in Zend, *div* and *dev*, in Greek, *theos*; in Latin, *deus*. [Irish, *dia*.]

Lord, or *Prince*, in Araucanian, *toqui*, from the verb *toquin*, to command; in Aleutian, *tokok*; at Atchem (Acheen,) in Sumatra, *tokko*.

To eat, in Cora, *cua*; in Tarahumar, *coa*; in Mexican, *qua*; in Alconte, *kaangen*, (Eat, imperat.) in Japanese, *cwa*.—In German, *kauen*, to *chew*.

I, pronoun, in Delaware, *ni*; in Tarahumar, *ne*; in Mexican, *nehuatl*; in Moture, *ne* (S. B.).—*Idem*, in Guaicure, *am*; in Abipon, *aym*; in Wogul, *am*.—In Waicure, *te*; in Mongol, Tunguse, and Mantchoo, *bi* (V.)

Idem, in Wyandot, *dee*; in Mixtec, *di*; in Andi (Caucasian) *den*; in Awar, *dida*, I myself.

Idem, in Lulean, *quis*; in Totonac, *quit*; in Kadjak, *khoui*; in Aleutian, *kien*; in Kamtchadale, *komma*, I; *kis*, thou; in Lamut-Tunguse, *kie*, I and me; *kou*, thou.

Idem, in Nadowessian, *meo*; in Yakut, *min*; in Yukagir, *matat*; in Finnish and Laplandish, *miya*.

Thou, pronoun, in Huastec, *tata*; in Yukagir, *tat*; in Mexican, *te-huatl*; in Siriaie, *te* (V.)

He, pronoun, in Tarahumar, *iche*; in Huastec, *jaja*; in Mexican, *yehuatl*; in Tagalian and Malay, *iya* (V.)

We and *You*, in Mocobi, *ocom* and *ocomigi*; in Guaicure, *oco* and *acami diguagi*; in Abipon, *akam* and *akamyi*; in Malay, *camy* and *kamy*; in Tagalian, *camon* and *camo* (V.)

^a This word corresponds rather with the Madagascar *vaiuolé*. The Malays have come from Madagascar to America, by following the direction of the winds and currents.

^b Basque, *aïta*; Irish, *athair*; Gothic, *atta*; Frisic, *haita*; Hungarian, *atya*; Albanian, *atta*, *tata*; Welsh, *tad*; Kisti (Caucasian) *dada*; Akuscha (Caucasian) *dudesch*.—P.

^c L. *papa*; Grison, *bab*; Tartar, *baba*; Curdish, *babar*; Zend, *pete*; Persian, *peder*; Gr., Lat. *pater*; G. *vater*; Saxon, *fader*.—P.

^d Shemitic, *ab*; Birman, *apa*; Koriak, *appa*; Ostiak, *obo*.—P.

^e We may approximate to this *nulma*, man, male, in Mantchoo.

^f This connexion will not appear forced to those who are aware how much names, that express family connexions, are confounded together.

^g Pronounced *hhouahhoua*. It is possible that the resemblance is owing to a mere onomatopœia.

^h Germ. *kehle*, Belgic, *keel*, the throat, Fr. *gucule* L. *gula*.—P.

ⁱ The words of the languages comprised within the two gaps are completely different.

^k The *Tou-Kins* were a horde to the north of China. The word *koro* answers to the Tartar *kara*, as well as several other Teu-Kin words. The Chinese made from it *holo*. Perhaps *coca*, black, in Ay-mar, and *couyoné*, night, in Tarahumar, may have sprung from the same root.

Yes, in Galibi, *teré*; in Samoiede, *terem* (V.)—In Ottomac, *haa*; at Nootka-Sound, *ai*; in Kadjak and Aleutian, *aang*; in the Sandwich Islands, *ai*; in Yakut, *ak*; in Ostiak and Aleutian, *aa*; in Mexican, *yve*; in Miami, *iyé*; in Jotonek, *ya*; in Tunguse, *ya*; in Aleutian, *je*; in Finnish, &c. &c. *ya*.
One, in Mexican, *ce*; in Jesso, *zen-etsoub*; in Kabardian, *ze*; in Awar, *zo*.
Idem, in Laymon, *tejoc*; in Betoï, *edojojoi*; in Japanese, *itjido*, once; in Birman, *thit*; in Lieukieu, *tids* or *idshi*.
Two, in Pima, *kok*; in Yakut, *iké*; in Awar, *ké*; in Permian, *kik*; in Esthonian, *kaks*.

NOTE.—M. Vater has discovered thirty-one analogies between words in the languages of America and Europe. Out of this number, however, thirteen are derived from the Finnish languages, and naturally belong, as well as those from Scandinavia, to the chain of idioms of the north of Asia. Others are founded on error; for instance, *yztic*, cold, in Mexican, bears no affinity with the Basque *otza*, but with the Scandinavian *iis*, to the Ostiak *jech*, &c. &c.

The same learned gentleman has pointed out thirty-three analogies between American and African idioms. He might have added the following:—

Sun, *veiou*, in Galibi; *weye*, in Yaoï.—*Ouwia*, on the Gold-coast; *eiwian*, in Amina; *ouai*, in Watie.

Hand, *is*, in Lulean; *isunga*, in Koussa; *ulegh*, in Barabra.

Three, in Totonac, *toto*; in Tagalian, *tatto*.—In Chippeway, *taghy*; in Malay, *tiga*.—In Chili, *koula*; in Ostiak, *kolim*; in Esthonian, *kolm*; in Yarura, *tarani*; in New Zealand, *toroa* (V.)

Four, in Araucanian, *meli*; in Birman, *leh*.

Five, in Iroquois, *wisk*; in Yakut, *bes*; in Esthonian, *wis*; in Laplandish, *wit*.

Idem, in Totonac, *tati*; in Samoiede, *tetti* (V.)

Eight, in Pima, *kikia*; in Permian, *kykiamis* (V.)

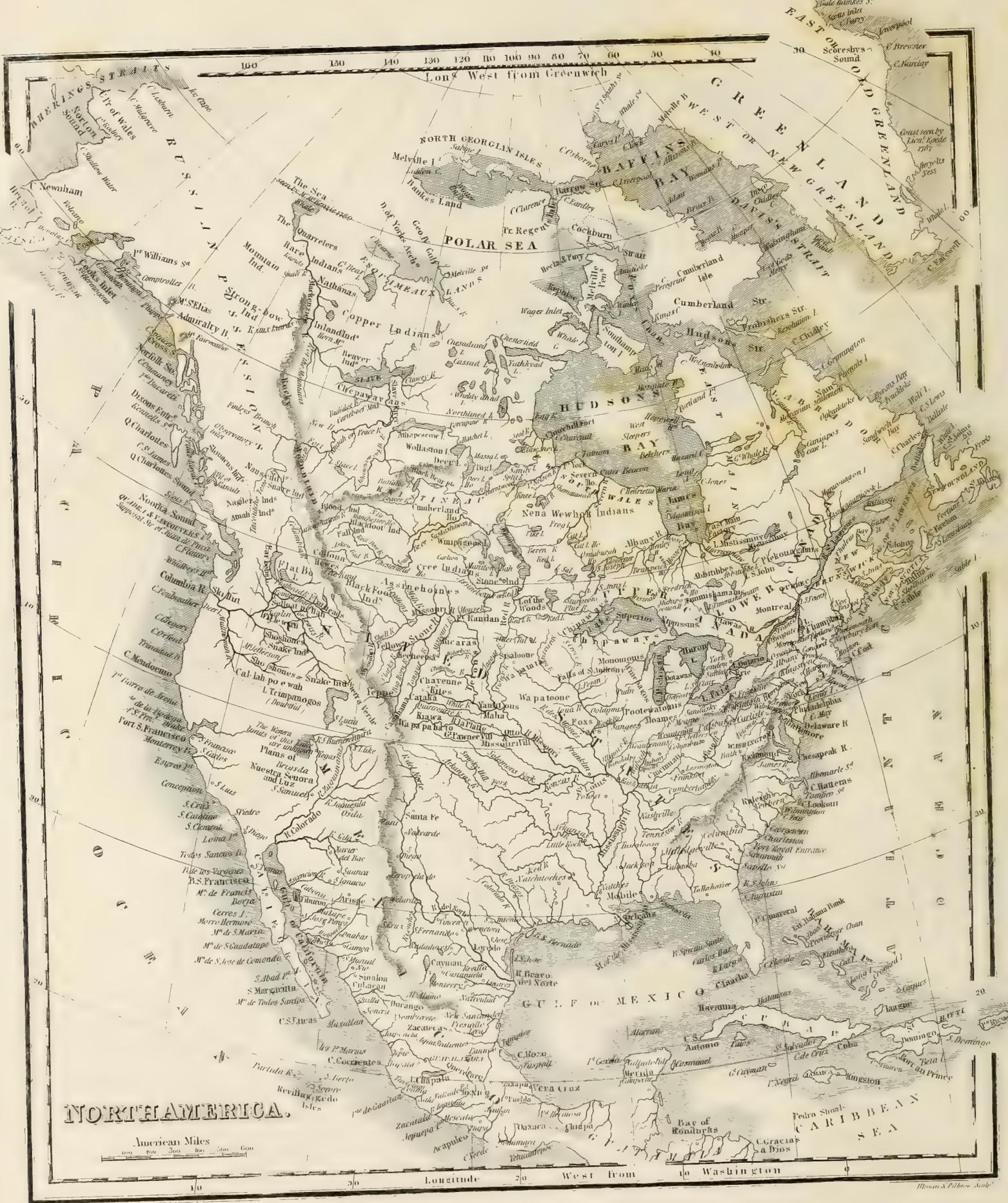
Nine, in Quichua, *yzcon*; in Awar and Andi, *itsch*.

I, *di*, in Mixtec; *dia* and *di*, in Koussa.

It seems to us, that these words, being found in South America, in the vicinity of the Malay words, indicate the arrival of a colony of Malays, mixed with inhabitants of Madagascar and Caffres.

We have discovered in the vocabularies of Nigritia, recently published, several new analogies; but they do not seem to promise much, though it is our intention to prosecute the inquiry still further.

N. B. The reader will please to observe, that the analogical words of the above table are retained in the French orthography, into which they have been translated by M. Malte-Brun; it being impossible to discover what allowances he may have made, or what rules he may have followed, in adapting them to the orthoëpy of that language.—ED.



NORTH AMERICA.

American Miles
 100 200 300 400 500 600

BOOK LXXVI.

AMERICA.

Description of America.—Researches concerning the navigation of the Icy Sea of the North.—North-west coast of America.

THE extremities of America towards the north, the north-west, and the north-east, come now to engage our attention. These regions, however, which may be termed "American Siberia," even after the recent voyages of Ross, Parry, Franklin, and Kotzebue, still continue in a great measure unknown. We are ignorant, for instance, whether the waters seen by Mackenzie and Hearne, are lakes, or gulfs, or a part of the Icy sea. The itinerary of Hearne, properly estimated, and adjusted to the true points of the compass, would, in my opinion, conduct us nearly a hundred leagues more to the north-east, and probably to the shores of some lake or gulf connected with Baffin's Bay. Captain Franklin has brought the mouth of Mackenzie's^a River almost eight degrees to the east of its assigned position. The sea into which this and Copper-mine River fall, is salt, has tides, and is *believed* to communicate with the sea at Repulse Bay; but though coasted for more than 500 miles to the eastward, the point has not been ascertained. We are equally uncertain whether this sea be identical with that which washes Melville Island, the western limit of Parry's first voyage. On the whole, though the voyages of Ross, Franklin, and Parry, have brought the eastern and western shores of North America to within half of their former distance, the identity of the sea which washes *Cape Turnagain*, *Repulse Bay*, and *Melville Island*, is far from being established; and the question of its extension to Icy Cape, or what is called the North-west Passage, remains still to be investigated. The second voyage of Parry^b has added nothing to advance the solution of this question. The actual existence and limits of Baffin's Bay itself, called in question by an arrogant scepticism, which mistakes its own caprices for argument, have been established by the expeditions of Ross and Parry; but the discovery of Barrow's Straits, by the last of these navigators, has authorized the learned critic still to question, whether the coasts seen by the intrepid Baffin are continuous, or belong to a chain of islands. The openings bearing the name of Jones, Smith, Whale, Wolstenholme, have not been visited in detail, and in the bottom of one or more of these bays, straits might possibly still be discovered. The extent of Greenland to the north-west and north-east, has eluded the persevering researches of the Danish missionaries. All that is known is, that the Greenlanders, after passing a strait, have communicated with tribes of their own race to the north of Baffin's bay. It is still

undecided where a gulf or strait is terminated, which was discovered in 1761, upon the eastern coast of Greenland, by Volquart Boon, a Dane. On the other hand, the islands seen to the north of Cape Ceverovostochnoi in Siberia, the great coast of Ielmer in the same latitude, and the land of Liaikhof, have not been examined; nor do we know whether this land forms part of a continent, or if that continent is part of America. The immortal Cook, after having again explored Behring's Straits, very soon found his progress arrested by ice, which united the two continents. Sarytchew assures us that this ice never disappears, or, at least, that its disappearing is so extraordinary an occurrence, that it does not happen above once in a hundred years.^c This immoveable nature of the ice, the want of ebb and flow of the tide to the north of eastern Siberia, the light and variable winds, the comparative frequency of clear weather, the arrival in Siberia of troops of bears and foxes in a well-fed condition, which have traversed the Frozen Sea to the north of *Cape Tchalaginskoi*, all lead us to conclude, that the continent of America extends very far to the north, and actually forms, at the pole itself, a *third* great peninsula. The land discovered to the north of Siberia, by *Liachof*, and *Chwoïnof*, appears to be one extremity of America. The passage between this arctic land and Siberia, contains the celebrated islands, which are entirely composed of the bones of the rhinoceros and elephant, mixed with the remains of cetaceous animals—a mass of debris, that appears to have been accumulated by a current which no longer found any outlet. Perhaps even Greenland may be united with America, on the north-west side; while the coasts described by Baffin, may, in part, be only an archipelago, which leaves behind it an inland sea, similar to the Gulf of Mexico. It is even possible that many basins of the same kind may exist to the north and north-west of America. Not one of these questions has been resolved by the voyages of the intrepid Parry, in other respects so valuable.

Who, however, will dare to penetrate these frightful abodes of eternal winter; this gloomy region, where the sun sheds in vain his oblique rays on a soil doomed to perpetual barrenness; plains that are overspread with dreary moss, and valleys in which the echoes never repeat the warbling of even a solitary bird; these places, in fine, where nature sees her vivifying influence expire, and witnesses the awful termination of her vast empire?

We know not how far a traveller might penetrate by land, if, at once prudent and courageous, he were to provide against the freezing winds, and the want of provisions.

^a Map of Connected Discoveries, Frankl. Journey to Polar Sea.

^b In 1822, 1823.

VOL. II.—NOS. 73 & 74.

^c Sarytchew's Voyage to the Icy Sea, v. i. p. 99. (In Russian.)

But nothing more can be hoped for from fresh attempts by sea, since Ross, Parry, Franklin, Cook, Billings, and Sarytchew, have confirmed the observations of Heemskerck, Wood, Mulgrave, Hudson, Jens Munk, Fox, and Baffin, who were every one of them arrested in their progress by either land or ice. Nevertheless, a contrary opinion has been suddenly revived, by the discovery of the account of a pretended voyage round the northern extremities of America, compiled by Maldonado Ferrer, which this impostor allèges that he himself performed in 1588. This memoir, discovered in the Ambrosian Library at Milan, and the publication of which is due to the zeal of the learned M. Amoretti, is addressed to the Royal Court of Lisbon, for the purpose of inducing that government to fit out an expedition, of which, no doubt, he himself hoped to have the command. It is composed of thirty-five paragraphs, of which the eight first detail the great commercial advantages of this new passage, and the necessity of occupying it by a military force. From the ninth to the thirty-third paragraph, information is given with regard both to the route, and his pretended voyage; and the two last contain the plan of an expedition which he affirms ought to be sent thither.^a

Without entering into a detail of the contradictions which result from an examination of Maldonado's calculations, and from comparing the two translations of the original Spanish published by M. Amoretti, the one in Italian, the other in French; we will merely remark that, in tracing his voyage on a modern chart, the first unknown part of the route passes through some pretended Straits of *Labrador*, 280 or 290 miles in length, which would occupy, throughout its whole extent, the land situated to the west of Davis's Straits and Baffin's Bay. The second comprehends a navigation of three hundred and fifty miles, *in an open sea*, descending from 75° of latitude, to 71° in the vicinity of Icy Cape, beyond which, neither Cook nor King could advance from the south. The third part of this voyage conducts him across a part of the actual continent of Asia, by what he calls the *Straits of Anian*; which, according to his bearings, ought to be looked for in Tartary, sixty miles to the west of Okhotsk. In the fourth, he stretches along the *coast of America*, which is there one continued *desert plain*: but, according to the charts, he must have traversed the Stannowoi mountains in the country of the Tunguses. Finally, in the fifth, he describes a great elevated coast, which, from its position, can be nothing else than that of Lake Baikal. Were it even possible to admit that Maldonado was mistaken in his longitude, and that his Straits of Anian are, in fact, what we are acquainted with under the name of Behring's or Cook's, the difficulties would still be the same; because, in that case, Maldonado must have crossed the Peninsula of Alaska, or at all events, must have passed through the midst of the Aleutian Islands, without being able to perceive them! Besides, Maldonado's Straits of Anian bear no resemblance whatever to those of Behring, being rather copied from those of Magellan. He pretends to have followed this route, which, according even to his own account, exceeds seven hundred geographical miles in length, twice in the course of one summer, without encountering ice, seals,

white bears, or any thing, in short, which is peculiar to the northern zone. But he tells us of a wall, above three feet high, composed of egg-shells, and speaks of beautiful trees, that retain their fruit the whole year; he found the *Litchis*,^b a Chinese fruit, the wild vine, and various kinds of game belonging to the temperate climates; and, more particularly, a species of hog with its navel on its back, and lobsters a foot and a half in length; nay, he actually affirms that he saw a *Russian* or *Hanseatic* vessel, of 800 tons, on its passage to Archangel!! These, with many others, are the marvellous stories which Maldonado relates. It is natural, therefore, to feel some curiosity respecting such a personage. Unfortunately, however, all that is known of him is reduced to two notes, the one an extract from the "Spanish Library"^c of N. Antonio, according to which, he was an old military officer, who was well acquainted with navigation and geography, and was the author of a work entitled the *Picture of the World*,^d and of a History of the discovery of the Straits of Anian. The other is extracted from the "Indian Library"^e of Antonio de Leon, from which it appears that Maldonado had drawn the council of the Indies into great expense, by the vain promise of inventing a compass that would not be subject to the inconvenience of the variation, and a method for finding the longitude at sea.

In the the thirtieth paragraph of his plan for the expedition, Maldonado says, that he was guided, during his voyage, by a good account written by Joam Martinez, a Portuguese pilot, and a native of Algarve, but of whom no one knows any thing. It appears probable, therefore, that this manufacturer of projects was in possession of some unknown accounts of the Portuguese voyages through Hudson's Straits, called the Straits of Anian by Cortereal. He no doubt combined these notions with some hints borrowed from the Japanese, respecting the sea of Okhotsk. Hence, this combination of positions, which it is impossible to admit, and this union of physical characters which belong to different climates.^f The relation of Maldonado, in short, is no longer any thing but a bibliographical curiosity. It was such stories as these which made Baffin say,^g after having explored with the greatest care, in 1615 and 1616, all the coasts of the sea which bears his name, "The Spaniards, a vain and jealous people, would never have ventured to publish so many false charts and imaginary journals, unless convinced of the existence of a north-west passage, they had been anxious to deprive of the glory of the discovery, that courageous individual who should be the first to pass it. As to myself, I was unable to renounce this opinion, so generally received, until I was persuaded of the absolute impossibility of finding what I had so ardently longed to discover."

This opinion of the pretended navigations of Maldonado Ferrer, seems to us to be still further confirmed by the late discoveries of Parry, since they do not coincide with those of Maldonado, either in regard to positions or physical details.

Let us then acknowledge with this navigator, and with all who possess any true knowledge, that the extent of America to the north is still unknown, and that no one has sailed round it on that side.

^a Viaggio del Mare Atlantico al Pacifico per la via del nord-ouest, &c. &c. Milan, 1811.

^b Lee-tchee.

^c Biblioteca Española.

^d Imagen del Mundo.

^e Biblioteca Indiana.

^f Baron Von Lindenau, The probability of Maldonado's Voyage examined. In 8vo. Gotha, 1812. (In German.)

^g Purchas' Pilgrims, t. III. p. 843.

When we reflect on the nature of the icy sea, it is difficult to believe that navigators can ever explore its extent. Every where they have encountered fixed ice, which has arrested their progress; or moveable ice, which threatening to enclose them, has put all their courage to flight. Captain Wood, who firmly believed in the possibility of a northern passage, found his further progress stopped at 76° by a continent of ice, which united together Nova-Zembla, Spitzbergen, and Greenland. Captain Souter, on the contrary, in 1780, continued his course as far as 82° 6', in a smooth and open channel. The fixed ice, however, which formed the sides, beginning to be detached, he dreaded lest his return should be cut off, and, accordingly, abandoned the enterprise.^a Although the courageous Baffin, and a few others,^b have been able to make the circuit of the bay that bears his name, this sea has been generally found closed by masses of fixed ice, of a hundred German leagues in length, and containing mountains four hundred feet high.^c Perhaps, James' Island, marked in several charts, was a similar mass of ice. Captain Wafer frankly confesses that he mistook fixed ice, five hundred feet in height, for genuine islands.^d It often happens that this floating ice is found covered with large stones and trees, torn up by the roots, which produces the illusion of a land covered with vegetation. It is quite uncertain whether the Dutch discovered, to the east of Spitzbergen, an actual coast, or only an expanse of ice. In one of their voyages to the north of Nova-Zembla, they found a field of blueish-coloured ice, covered with earth, on which birds built their nests.^e Two islands of ice have continued stationary for half a century in Disco Bay. Dutch whalers have visited them, and have given them names. The same thing has occurred in the neighbourhood of Iceland.^f

An equal degree of danger attends moveable ice. The shock of these enormous masses produces a tremendous crash, which warns the seaman how easily his vessel would be crushed to pieces if it were caught between these floating islands.^g Frequently the wood that drifts upon this sea, and of which we shall afterwards speak more at length, takes fire in consequence of the violent friction to which it is exposed by the movement of the ice, and smoke and flames burst forth in the midst of eternal winter.^h This floating wood is very frequently found charred at both ends.ⁱ In winter, the intensity of the cold is continually bursting asunder the mountains of ice, and every moment is heard the explosion of these masses, which yawn into enormous rents. In spring, the movement of the ice more generally consists of the mere overturning of these masses, which lose their equilibrium in consequence of one part being dissolved before another. The fog which envelops this melting ice is so dense, that from one extremity of a frigate, it is impossible to discern the other.^k At all seasons, the broken ice, accumulated in the channels or gulfs, equally checks the passage of the adventurer on foot, whom it would instantly overwhelm, and of the mariner, by paralyzing the movements of his vessel.

Has any one the boldness to conceive the idea of a party of travellers, traversing in sledges this frozen sea, or

the icy land which occupies its imagined site? No doubt, certain precautions might enable man to respire at the very pole itself; but, what means of transport would conduct him thither? The country, in all probability, rugged, and elevated, like Greenland, Spitzbergen, and New Siberia, would not admit of the passage of sledges. Neither does marine ice stretch out in uninterrupted plains. Overturned and accumulated in a thousand different ways, it frequently offers to the view castles of crystal in ruins, shattered pyramids and obelisks, arches and vaults suspended in the air. Very often, too, in order to cross the broad and deep fissures, facilities would be required, with which the traveller could not be supplied. Yet with what delightful emotions would he tread those regions that had never been impressed by the foot of man! How rich in curious observations would be a single day and night passed at the pole! This, however, is not the place to point out the arrangements that would be requisite for the performance of such a journey. We must hasten, therefore, to unite in a descriptive form, the observations that have been already collected. The second voyage of Parry has added but little to those of which we were formerly in possession.

The north-west region of America, the first we shall describe, in all probability commences with the land of Liakhof, surnamed New Siberia; but, as this fact still remains to be established, we will confine ourselves to *Russian America*, into which we shall pass by Behring's Straits, and the chain of the *Aleutian Islands*.

These islands are divided into several groups, of which the indigenous names are, *Chao*, *Negho*, and *Kawalang*, or the *Aleutian Islands*, properly so called, the *Andreanowski*, and the Fox Islands, of the Russians. But, the custom has prevailed of comprising them all under the general name of the *Aleutian Islands*. In fact, they constitute one single and unique chain; and might be compared to the piles of an immense bridge, which has formerly been thrown across from continent to continent. They describe, between Kamtchatka, in Asia, and the promontory of Alaska, in America, an arc of a circle, which almost joins the two lands together. They are distinguished into twelve principal islands, accompanied with a very great number of lesser ones, and rocks. *Copper Island*, and *Behring's Island*, are a little detached from the rest, and approach the peninsula of Kamtchatka. Accordingly, we have already described them when speaking of Siberia.

The population of the whole of these islands does not at present exceed eleven hundred males, of whom, five hundred of the most robust and most active are employed by the Russian hunters. This people was formerly much more numerous. They had their chiefs, a particular government, and a national religion. But, with their population, the Russians have at the same time destroyed their manners, their customs, and their liberty.^l Sent as slaves to hunt and to fish, these islanders perish in great numbers on the sea, and in ill-conducted hospitals.^m

The island which appears to possess the greatest number of inhabitants is *Oonalashka*, and next to it *Sithanak*,

^a Bacstrom's Voyage to Spitzbergen. Philosophical Magazine, 1801. Ross, 1818.

^b Crantz, History of Greenland, book I. ch. II.

^c Wafer, Voyage à la suite de ceux de Dampier, t. IV. p. 304.

^d Voyages des Hollandais par le Nord, t. I. p. 47.

^e Olafsen, Voyage au Island, t. I. p. 275. (German translation.)

^f Martens, Voyage au Nord, t. II. p. 62. Voyages des Hollandais

au Nord, t. I. p. 46. Crantz, History of Greenland, ch. II. Forster Observations on Physical Geography, p. 64. (In German.)

^g Olafsen, Voyage en Island, t. I. p. 276—278

^h Ibid. p. 273.

ⁱ Account of the Danish Officers, sent to Greenland in 1788.

^k Sarytchew's Voyage, v. II. p. 22. (In Russian.)

^l Langsdorf's Voyage round the World, v. II. p. 222, and p. 94. (English translation.)

which is immediately adjoining. These islanders are of a moderate stature, and of a brown complexion. Their face is round, their nose small, and their eyes black. Their hair, likewise black, is harsh, and very strong. They have little beard on their chin, but a great deal on their upper lip. In general, they pierce their lower lips, as well as the cartilage which separates the nostrils, and wear as ornaments, little carved pieces of bone, or glass beads. The women have a roundness of form, without, however, being pretty. They tattoo their chin, arms, and cheeks. Mild and industrious, they manufacture mats and baskets with considerable art. They make curtains, seats, and beds, of their mats. Their dress of bear skin is worn with the hair outermost. The canoes^a of Oonalashka are built with ingenuity. Their shape is picturesque. Through the transparent skin with which they are covered, the rowers and all their movements may be discovered. These islanders are addicted to superstitions which appear to resemble Schamanism.^b They do not make use of any marriage ceremony. When they want a wife, they purchase her of her father and mother; and take as many as they can support. If they repent of their acquisition, they give back the woman to her parents, who are then obliged to restore a part of the price. The people of this Archipelago appear to be not entirely exempted from unnatural appetites. They render honour to the dead, and embalm their bodies. In this way, a mother often preserves her lifeless infant before she consigns it to the earth. The mortal remains of their chiefs and men of wealth, are not interred. Suspended in hammocks, they are gradually consumed by the air.^c The language of the Aleutians, different from that of Kamtchatka, appears to have some analogy with the idioms of Iesso, and the Kurile Islands. In the island of *Oomanak*,^d the largest, and nearest to the continent, the Russians have a Bishop, a monastery, a small garrison, and a dock-yard for building vessels.

The climate is more disagreeable on account of its moisture, than the intensity of the cold. The snow, which falls in great quantity, does not disappear till the month of May. Almost all the islands contain very lofty mountains, which are composed of a species of jasper, partly of a green and red colour, but, in general, of a yellow tint; with veins of a transparent stone, which resembles chalcedony. The island of *Tanaga* contains lakes of fresh water. There are volcanoes also, some of which are extinguished, others in activity. These latter are found in the islands of *Takawangha*, *Kanaghi*, *Ateham*, and *Oomanak*. In this latter island, in that of *Kanaghi*, as well as in that of *Oonalashka*, boiling springs issue from their frozen soil, in which the natives cook their meat and fish.

The only quadrupeds met with on these islands are foxes and mice. Among the birds, are observed ducks, partridges, teal, cormorants, gulls, and eagles.

The islands that are nearest to America produce some pines, larches, and oaks. On the western islands, nothing is met with but stunted willows. The verdure exhibits considerable richness. The mountains produce brambles, and the valleys wild raspberries, which are of a white colour, and have an insipid taste.

The island of *Kodiak*^e is mountainous, and intersected with valleys. Its inhabitants, who call themselves *Koniaghés*,^f are about two thousand five hundred in number, without reckoning the Russians, who have fixed their principal establishment here. The habitations of the islanders of *Kodiak*, less sunk in the ground than those of the Aleutians, partake, at the same time, of the nature of caverns and of huts. They have even introduced the luxury of an opening, for the escape of the smoke. The women absolutely idolize their children. Some of them educate them in a very effeminate manner. They allow their chiefs to select them as the objects of a depraved passion. These young people are then dressed like women, and are employed in all the domestic occupations of the household.

The vegetable productions of the island of *Kodiak* are the alder,^g an immense quantity of rasp and gooseberry bushes, and a great variety of roots, which, together with fish, constitute the food of the inhabitants. In the interior of the island, the pine tree forms very extensive forests, and furnishes excellent timber for building.^h

That part of the continent comprehended under the name of *Russian America*, the sovereignty of which has been claimed by the court of Russia, as a land first discovered and occupied by Russian subjects, presents on every side the most savage and gloomy appearance. Above a range of hills covered with pines and birch, rise naked mountains, crowned with enormous masses of ice, which often detach themselves, and roll down with a dreadful noise into the valleys below, which they entirely fill up, or into the rivers and bays, where, remaining without melting, they rise in banks of crystal. When such a mass falls, the crashing forests are torn up by the roots, and scattered to a distance; the echoes resound along the shores with the noise of thunder, the sea rises up in foam, ships experience a violent concussion, and the affrighted navigator witnesses, almost in the midst of the sea, a renewal of those terrific scenes which sometimes spread such devastation in Alpine regions.ⁱ Between the foot of these mountains and the sea, there extends a stripe of low land, the soil of which is almost every where a black and marshy earth. This ground is only calculated for producing coarse, though numerous mosses, very short grass, *vaccinia*, and some other little plants. Some of these marshes, hanging on the side of the hills, retain the water like a sponge, while their verdure makes them appear like solid ground; but, in attempting to pass them, the traveller sinks up to the mid-leg.^k Nevertheless, the pine tree acquires a great size upon these gloomy rocks. Next to the fir, the most common species is that of the alder. In many places nothing is to be seen but dwarf trees and shrubs. Upon no coast with which we are acquainted, have there been remarked such rapid encroachments of the sea upon the land. The trunks of trees that had been cut down by European navigators, have been found, and recognised, after a lapse of ten years. These trunks are found sunk in the water, with the earth which supported them.

The inhabitants of the coast of Behring's Straits ap-

^a "Baidares," baidarkas.

^b See vol. I. p. 203.

^c Georgi, les Nations Russes, p. 373.

^d Generally spelt *Oonemak*.

^e Kodiak, Kadjak.

^f Konægi.

^g "Sureau," elder.

^h Stæhlin's Description of Kodiak, &c. p. 32—34.

ⁱ Vancouver, t. V. p. 57, &c. Billings, t. II. p. 133. Cook's Third Voyage.

^k Vancouver, t. V. p. 76.

pear to belong to the same race as the Tchuktchis, on the opposite coast of Asia, although they are said to be at war with them. Their huts, more numerous than might be supposed in a similar climate, are situated along the shores of the sea, as far as the *Kamtchatkan Gulf*,^a to which Captain Cook gave the name of *Bristol Bay*, because, in fact, it resembles that bay in England. The interior has not been visited. The *Konia* inhabit the eastern part of the peninsula of Alaska, which is almost separated from the continent by the *Lake Schelekov*. They appear to be of the same race as the Aleutians, as well as the *Kenaitze*, their neighbours to the east. The latter have given their name to the *Kenaitzian Gulf*, previously known under the name of *Cook's River*. Notwithstanding appearances to the contrary, no large river has been discovered here. Farther to the east, live the *Tchougatches*, a people of an imposing stature, who speak an idiom resembling that of the Tchuktchis. The bay, covered with islands, and called by Captain Cook *Norton's Inlet*, bears the name of the *Tchougatchian Gulf*, in the Russian charts. A river separates this tribe from that of the *Ougalchmiouts*,^b who live near the celebrated *Mount St. Elias*, which is probably a volcanic peak, and is calculated to have an elevation of 2775 toises. It was in the environs of this mountain that Behring landed, in the bay which bears his name, called in the idiom of the indigenous inhabitants, the bay of *Iakatak*. The Russians have built a small fort there; but *Sitka*, or *New Archangel*, their last establishment, is situated two degrees farther to the south, in one of the islands which Vancouver had denominated the Archipelago of King George III. A milder climate allows of the vigorous growth of the pine, the American cedar, and several other trees. Berries of an excellent taste are likewise met with; fish is abundant and delicious, and rye and barley have succeeded there.

The warlike and ferocious *Kolougis*, *Kolioujes*, or *Kalougians*,^c inhabit this coast. Possessing some fire arms, they still carry on an obstinate war against the Russians.^d It was in the territory of the Kalougians, that the unfortunate La Peyrouse discovered the *Port des Français*,^e which has been immortalized by the noble and unhappy sacrifice of the brothers La Borde. The French navigators give the most favourable account of the active and industrious spirit of the natives. Forging of iron and copper; working a kind of tapestry with the needle; weaving, with a great deal of ingenuity and taste, hats and baskets of reeds; hewing, sculpturing, and polishing serpentine stone; such are the first indications of the incipient civilization of this tribe.^f But, a strong propensity to theft, an indifference to the ties of kindred and marriage, the dirtiness of their cabins, and the disgusting custom of wearing a piece of wood in a slit in their lower lip, establish a resemblance between them and their savage neighbours, and the Siberian Russians, who come to aggravate here all the evils of primitive barbarism.

The fur which the Russians obtain from these countries, is chiefly procured from the sea-wolf, as well as other

animals of the genus *Phoca*, and likewise from the sea-otter. These latter animals, incessantly hunted, begin now to become rare. The Indians employed as hunters, bring from the interior of the continent foxes' skins of a blue, black, and gray colour. Already parties of Russian hunters have passed the Rocky Mountains, and, in all probability, have interfered with the Canadian and American hunters. The Russian Company of America possesses a capital of 260,000*l.*^g Those who are principally interested in this trade, are the merchants of Irkutsk, a town in Siberia. The factories spread along the coasts of the continent, and upon the islands, are nothing more than a collection of huts, surrounded by palisades of wood. A single ship of war would carry these feeble posts, one after the other, and would obtain a rich booty from the store-houses of the Company. Even a party of resolute Canadian hunters would be sufficient for this purpose; because the natives, detesting the Russians, would, doubtlessly, join their enemies. It may be questioned if such distant and precarious establishments are sufficiently valuable for the Russians to expose themselves to the risk of disputes with the English and Anglo-Americans, which seems to be the inevitable result of the continual advance of the hunters on both sides.

The countries that extend to the south of Russian America, as far as the confines of California, appear to form a long succession of plateaus, or very elevated basins, which are circumscribed to the east and west by two chains of mountains, the most easterly of which is, what the English have denominated the *Stony* or *Rocky Mountains*. It is at the foot of these mountains that the largest rivers of North America take their rise, such as the Missouri, which flows to the south-east; the *Saskashawan*, or *Bourbon* River, which runs to the east; and the *Unjigah*, or *Peace River*, which is lost towards the north. The other precipitous face of the north-west plateau forms a great chain parallel to the sea coast, and always at a short distance from the Pacific Ocean. This distinction between the two chains which support the north-west plateau, appears to us to result from the observations of those who have traversed this country from east to west. The first of these travellers is *Mackenzie*, who, in his map, places the chain of the Rocky Mountains at more than a hundred leagues from the shore of the Pacific Ocean. These mountains appeared to him to rise about 3000 feet above their base, which must, itself, be very elevated; since our traveller experienced a more intense degree of cold there than at *Fort Chepewyan*.^h Their summits were covered with perpetual snow. He then descended to a more temperate valley, through which flows the *Tacoutche Tesse*, or *Columbia River*.^{i k}

Here is manifestly the limit of the chain of the *Stony Mountains*. This chain continues a hundred leagues distant from the Pacific Ocean, or, at least, eighty, after allowing something for the sinuosities and ramifications.

Mackenzie then ascended very lofty mountains, where he found himself obliged to travel on snow in the month of

^a Or *Kamitchatskaia*; but the last syllables are only the termination of the Russian adjective in the feminine, corresponding to the substantive *guba*. It becomes necessary, therefore, to Anglicise it, in order to make it correspond with *gulf*.

^b *Ugaljuchmutzi*, Adelung. ^c *Koliousches*.

^d *Lisianski's Voyage round the World*, p. 162. (English translation.) *Langsdorf's Voyage round the World*, t. II. p. 217. (English translation.)

^e *Port Français*.

^f *La Peyrouse's Voyage round the World*, chap. IX.

^g Six millions and a half, Fr.

^h *Mackenzie's Voyages*, (French translation,) t. II. p. 274. 310, &c.

ⁱ *Ibid.* p. 339—345.

^k The *Tacoutche Tesse* flows into *Birch's Bay*, in lat. 49° N. The *Columbia* empties in 46° 15' N. They are two different rivers.—P.

June.^a After this, he descended towards the sea by an extremely rapid declivity; the climate immediately changed, and the empire of spring succeeded that of winter. A modern navigator, Captain *Vancouver*, constantly observed a very high chain of mountains which closely bordered the shores of the continent, and in many places were covered with perpetual snow. La Peyrouse, Cook, Dixon, and all the other navigators, perceived this maritime chain of the north-west, which runs parallel to the coast, from Cook's Inlet to New Albion, a distance of more than 1000 leagues. Even the peninsula of California appears to be nothing more than the extremity of this great chain, disengaged from its secondary branches and terraces, or lower ridges, which, in New Albion, somewhat conceal its direction.

In order to throw some light on our description, we shall adopt the nomenclature of Captain Vancouver. According to the maps of this able observer, *New Georgia* is situated between 45° and 50° of north latitude. Its limits towards the interior are not determined. The *Gulf of Georgia* is very considerable, and communicates with the Pacific Ocean to the south by *Claaset Strait*, which is supposed to be that of *Juan de Fuca*, and to the north, by Queen Charlotte's Strait. The *Columbia* river traverses the southern part and interior of this division.

Quadra and *Vancouver's Island*, better known under the name of *Nootka*, is situated opposite New Georgia. The English have an establishment in Nootka Sound.

New Hanover extends from the 50th to the 54th parallel. In front of its coasts are situated the *Fleurieu Islands*, discovered and named by La Peyrouse, but unintentionally deprived of their appellation by Vancouver, in assigning them to the *Princess Royal* of England. To the north, there are two arms of the sea which penetrate very far into the land, and have been called Hinchinbrook's Canal, and Gardner's Canal. The great island of Queen Charlotte is separated from the coast of New Hanover, by a broad channel, or arm of the ocean. The southern promontory of this island was named *Cape Hector* by La Peyrouse, and *Cape St. James* by Vancouver.

New Cornwall extends from the 54th to the 57th parallel. It comprehends a number of islands, designated under the name of *Pitt's Archipelago*, and the *Prince of Wales's Archipelago*. The coast is completely intersected by friths, or channels, which penetrate very far into the country, especially *Portland Canal*; but no river of any length has yet been discovered. The streams of water that have been met with scarcely merit the name of rivulets.

New Norfolk runs as far as the 60th parallel. To the south it comprehends *Admiralty Island*, and *King George's Archipelago*; but, as the Russians now occupy these coasts, and the name of the natives, (the *Kolioujes*,) is known, the English denomination will probably soon disappear.

New Georgia presents the prospect of a moderately elevated coast, agreeably diversified by hills, meadows, little woods, and brooks of fresh water. But behind these shores rise mountains covered with perpetual snow. Mount *Rainier* and Mount *Olympus* tower far above the other summits. The former is discernible at the distance of a hundred geographical miles.^b Very rich ores of iron appear to exist in great abundance. Stones for building, quartz, agates, gun-flints, a great variety of calcareous and argil-

laceous earths, and manganese, are met with. A luxuriant vegetation indicates the fertility of the soil. The forests contain immense quantities of the yew-leaved fir,^c the white pine, *touramahac*, Canada poplar, arbor vitæ, common yew, black and common oak, American ash, hazel, sycamore, sugar-maple, mountain and Pennsylvanian maple, Oriental strawberry tree, American alder, common willow, black alder of Canada, and the cherry tree of Pennsylvania.

The quadrupeds present nothing remarkable. Bears have been seen, as well as the fallow deer of Virginia, and foxes, but neither the bison, nor the musk ox, these animals not appearing to pass the chain of the rocky mountains in the northern latitudes. Among other sea birds have been recognised black gulls, similar to those of New Holland and New Zealand. Among the land birds there is a species of the humming bird, the brown eagle, and the white-headed eagle, the king-fisher, some very pretty varieties of the woodpecker, and an unknown bird, resembling the heron, but *four feet* in height, and having a body as large as that of the turkey.^d

In order to become acquainted with the interior of New Georgia, we must accompany Messrs. Lewis and Clarke.^e These American travellers having quitted their boats on the Missouri, on the 18th of August, embarked again on the 7th of October, on the western side of the mountains, upon the river *Kooskooskee*, in boats which they themselves had constructed. During this part of their journey, hunger and cold combined together to aggravate their sufferings. The salmon had ceased to frequent the rivers, and horse's flesh was often their principal food. The intensity of the cold is easily explained, by the elevation of the country, and the height of the mountains. In the place at which the Americans quitted the Missouri, they had a prospect of mountains covered with snow in the middle of summer, situated in between 45° and 47° of latitude, whence it is to be inferred that the summits of these mountains rise into the region of perpetual snow. This region commences in Europe, at the same latitude, at nine or ten thousand feet above the level of the sea. But even admitting that the more intense cold of North America brings this region to a lower level, we may allow these mountains a height of eight or nine thousand feet above the surface of the ocean. During their passage across the mountains, it would appear that this expedition did not discover any trace of volcanoes; for the detonations which occasioned them so much astonishment, no doubt proceeded from the bursting of glaciers, or from avalanches, which were detached from the mountains. It was in the middle of the rainy season that they arrived at the Columbia, after which they had heavy falls of rain both day and night. The little clothing and bedding that had escaped all the adventures which they had encountered up to this moment, now fell in pieces, and could no longer be made use of. Their courage did not sink, however, under so many reverses. The waters of the Kooskooskee are as limpid as crystal. At the place where it falls into Lewis River, another branch of the Columbia, the Kooskooskee is 180 yards broad. Lewis River, at its confluence with the Columbia, is 575 yards, and the Columbia itself 960 in breadth. A little below their junction, the latter river acquires a breadth of from one to

^a Mackenzie's Voyages, (French translation,) t. III. p. 145—151.

^b Vancouver, t. III. p. 3 and 35. edit. 8vo.

^c *Pinus Taxifolia*.

^d Vancouver, t. III. p. 7.

^e Lewis and Clarke's Travels to the Sources of the Missouri and to the Pacific Ocean. Washington, 1814.

three miles. From the junction of the two rivers the country presents nothing but a succession of plains, without trees, and is merely sprinkled over with a few willow bushes. Still lower down rapid currents are met with, and there are even very considerable cascades. The most rapid of these currents is that of a channel not more than forty-five yards in breadth, in which all the waters of the Columbia are confined. Our travellers cleared this dangerous passage in their canoes, below which the river flows in a smooth and tranquil stream, and they found themselves in a charming and fertile valley, shaded by lofty forest trees, intersected by small lagoons, and possessing a soil susceptible of every kind of cultivation. The trees are remarkable for the greatest beauty. The fir rises sometimes to a height of 300 feet, and even attains a circumference of forty-five feet. These giants of the vegetable kingdom combine elegance with majesty, their columns sometimes towering 200 feet high before they divide into branches. Some of the tributary streams of the Columbia might pass for large rivers. One of them, the *Multnomah*, which issues from the rocky mountains towards the south-east, and not far from the sources of the Rio del Norte, is very broad, and, in many places, exceeds twenty-five feet in depth, even at a great distance from the sea.

It is particularly remarkable that in the bed of the Columbia, and of the last mentioned river, a great number of erect trunks of pine trees are firmly rooted at the bottom of the water, although, in many places, the river is thirty feet deep, and no where less than ten. Judging from the shattered state in which these trees were found, they must have been in this condition fully 20 years. It might hence be concluded, that the bed of the river has undergone great changes. The observations, however, which have been collected during this first expedition, are not sufficient to furnish us with any satisfactory information on the subject.

Among the islands of New Georgia, that of Nootka alone merits attention. Black granite, mica, grit for grindstones, and hematites, are found there.^a The vegetable earth in some places forms a bed of two feet in thickness. One is agreeably surprised to find a milder climate here than on the eastern coast of America in the same latitude. In the month of April, Fahrenheit's thermometer was never below 48° during the night, and, in the day, it rose to 60°. The grass was already a foot in length.^b The climate is as favourable to the growth of trees as that of the continent.

What negligence on the part of the Spaniards, not to have taken possession of this agreeable and fertile country; a country which, being situated in the rear of their colonies, might, in the hands of intelligent masters, become a military and commercial post of the highest importance! Already the inhabitants of New-York have formed a commercial company, for the furs of the Pacific Ocean, the principal establishment of which, situated 14 miles from *Cape Disappointment*, is called *Fort Astoria*.^c

That part of *New Hanover* which borders upon the open sea, resembles New Georgia, both in its vegetable productions, and the structure of its soil. Pine trees, maple, birch, and apple trees, are met with there. Near *Fitzhugh's*

Strait, the coast consists of perpendicular rock, divided by crevices, in which a very inflammable turf is found, and pine trees of moderate thickness.^d The interior of *New Hanover* was visited in 1793 by *Mackenzie*. The great river *Tacoutche Tesse* descends from the rocky mountains, and often rolls its rapid course between walls of perpendicular rock. The mountains are covered with snow, which, in some places, even descends so low that the road passes over it in the middle of summer. These mountains descend abruptly towards the Pacific Ocean, and the rivers that flow to the west have no great length of course. There are numerous small lakes; and sinks or tunnels, of a regular conical form, such as are frequently met with in calcareous countries.^e

The same luxuriant vegetation is observed here as in New Georgia. The pines and birch trees compose forests, in the more elevated parts of the country. Upon the lower mountains, the cedar is met with, or rather the cypress, of so enormous a size, as sometimes to measure twenty-four feet in circumference, and the alder rises forty feet high, before it sends off any branches. There are also poplars, firs, and probably many other useful trees.^f The wild parsnip grows in abundance round the lakes, and its roots furnish a nourishing food. The rivers contain trout, carp, and salmon. The latter of these fish are caught near dikes, constructed across the river, which reminds us of the salmon fishery of Norway.

New Cornwall experiences a much more intense degree of cold, than the two preceding countries. At 53° 30', upon *Gardner's Canal*, which, it is true, penetrates very far into the country, mountains are seen covered with ice and snow, that seem never to melt.^g Nearer the sea, the climate, becoming milder, allows forests of pine to cover the naked and steep rocks. The raspberry bush, cornel shrub, gooseberry bush, and the plant called the *Labrador tea*, are found in considerable quantities. Hot springs have been discovered; and there is an island entirely composed of slate,^h and a curious rock, shaped like an obelisk, has been denominated the *New Eddystone*. Floating wood is found in great abundance on many parts of this coast.

In the islands which Vancouver has designated by the names of *George the Third's Archipelago*, and *Admiralty Island*, the soil, although rocky, contains several crevices, stripes, and little plains, which support magnificent forests of pine and other lofty trees; and no where is perpetual snow discovered. This incontestibly proves that it is the elevation of the soil that renders the climate of the continent so severe.

It is especially in the environs of Nootka, that European voyagers have had an opportunity of observing the indigenous inhabitants. These savages call themselves *Walkash*. Their height is above the middle stature, and they are of a muscular frame. Their features are characterised by a prominence of the cheek-bones. Their face is often very much compressed above the cheeks, and appears to sink abruptly between the temples. Their nose, flat at the base, is marked by wide nostrils, and a round point. Their forehead is low, their eyes small and black, and their lips broad, thick, and rounded. In general, they are

^a Cook, *Troisième Voyage*, t. III. p. 73. 8vo. edition.

^b *Ibid.* p. 57.

^c National Intelligencer, an American Journal, June 22, 1813.

^d Vancouver, t. II. p. 174. 178.

^e Mackenzie's *Voyage*, t. III. p. 103. M. Castera's translation.

^f Mackenzie's *Voyage*, t. III. p. 99. 150. 247.

^g Vancouver, t. III. p. 274.

^h *Ibid.* p. 339.

entirely destitute of beard, or, at most, have only a small thin tuft at the point of their chin. This deficiency, however, is, perhaps, owing to an artificial cause; for, some of them and, especially their old men, have bushy beards, and even mustachios. Their eye-brows are scantily supplied with hair, and are always straight; but they have a considerable quantity of very harsh and very strong hair on their head, which, without a single exception, is black and straight, and floats on their shoulders. A coarse dress of linen, with a covering from the skin of the bear or sea otter, red, black, and white pigments, with which they besmear their body, the whole of their ordinary costume, in short, forms the image of wretchedness and ignorance. Their war-dress is extraordinary. They muffle up their head with pieces of wood, carved into the representation of eagles, wolves, and porpoises' heads. Several families live together in the same hut, the wooden half partitions of which give it the appearance of a stable. Some of their woollen stuffs, although manufactured without a loom, are very good, and are ornamented with figures of a brilliant colour. They carve clumsy statues of wood.

Their light canoes, which are flat and broad, bound over the waves in the steadiest manner, without the assistance of the outrigger,^a an essential distinction between the canoes of the American tribes, and those of the southern parts of the East Indies, and the islands of Oceania.

The apparatus which they make use of in hunting and fishing, is equally ingenious and well executed. A kind of oar, furnished with teeth, with which they hook the fish, is particularly noticed. This weapon, as well as the javelins with which they strike the whale, announce a high inventive genius. The javelin is composed of a piece of bone, furnished with two barbs, in which is fixed the oval-cutting edge of a large muscle-shell, which forms the point. Two or three fathoms of cord are attached to it. In order to throw this weapon, they use a stick, 12 or 15 feet in length, with the line attached to one extremity, and the javelin to the other, so as to detach it from the stick, like a buoy, when the animal escapes.^b

The tribes that inhabit New Georgia, differ in stature, manners, and mode of living; but in their characteristic features, they all resemble the inhabitants of Nootka Sound. The apparent depopulation of the environs of *Port Discovery*, is singularly contrasted with the great number of skulls and other human bones, which have been found collected together here, as if all the neighbouring tribes had made this their common cemetery.^c Messrs. Lewis and Clarke have observed the inhabitants of the interior. In descending the rocky mountains, they saw several tribes, who have the habit of flattening the heads of their children, at a very early period of infancy. The *Solkouks*^d have their skulls flattened to such a degree, that the top of the head is placed in a perpendicular line to their nose. The idioms of these tribes differ as much as their features. The language of the *Enouchouts*^e is understood by all the tribes that inhabit the Columbia, above its great fall; but near the coast, it is not understood, and they make use of

the idiom of the *Echillouts*,^f which is completely different. The language of the *Killamucks* is very widely diffused among the tribes that live to the south, between the coast and the river Multnomah. The *Koukouses*,^g who border on the Killamucks, but live farther in the interior, are of another race, are fairer, and have not their heads flattened. In general, the colour of all these tribes, whether they have round or flat heads, is of a brown copper hue, and is clearer than that of the tribes of the Missouri and Louisiana. Woman is not degraded as among nations of hunters, but is treated with considerable attention by this people, who subsist by fishing. The sea air injures their eyes and teeth. The tribes who live near the great fall of the Columbia, build their houses of wood, a degree of industry which is not met with in the immense tract of country between this fall and Saint Louis.^h

Some tribes of *New Hanover*, observed by Mackenzie, present to us several peculiar traits, which recall to our recollection the islanders of Otaheite and Tongataboo. The inhabitants of the Salmon River, or, as they themselves call it, *Annah-yoe-Tesse*, live under a despotic government.ⁱ They have two religious festivals; the one in spring, the other in autumn.^k In their solemn entertainments, they spread mats before their guests, while the people are seated in front in a semicircle. They mark their friendship for an individual by clothing him with their own dress, to which they sometimes add the offer of their place in the conjugal bed.^l But these characteristic manners are likewise met with among many other tribes of America and Asia. These tribes are generally of a middling stature, strong and muscular, have round faces, prominent cheek-bones, small reddish-grey eyes, and a complexion of an olive-copper colour. Their head assumes a conical shape, in consequence of continual pressure from infancy. Their hair is of a deep brown. They make their dress of a kind of stuff composed of cedar bark, and sometimes interwoven with strips of otter skin. They are clever sculptors. Their temples are supported by wooden pillars, carved into caryatides. Some of these figures are in an upright posture, in the attitude of conquerors; others are stooping, overwhelmed, as it were, with their load.^m

The *Sloua-Cuss* Indians inhabit that part of the country where the high chain of mountains that border the sea begins to sink towards the basin of the River *Tacoutche Tesse*. These Indians possess an agreeable physiognomy, evince a great love of cleanliness, and do not ill-treat their women. They preserve the bones of their parents enclosed in chests, or suspended on posts.ⁿ Though faithful guardians of the property deposited with them by travellers, they endeavour to steal whatever they find in the possession of those very strangers.^o

The *Nansrud*, or Fall Indians, the *Nagailers*, and the *Atnahs*, dwell on the upper part of the *Tacoutche Tesse*. Among their various idioms, there are some that resemble the languages of the Chippewyans, and other nations of Canada.

Vancouver saw villages on the coast that were built upon

^a "Balancier."

^b Cook's Third Voyage, *passim*.

^c Vancouver, t. II. p. 14. *seq.*

^d Sokulks.

^e Eneshure.

^f Eskeloot.

^g Cookkoo-oose.

^h Lewis and Clarke's Travels.

ⁱ Mackenzie, t. III. p. 271.

^k *Ibid.* p. 170.

^l *Ibid.* p. 181.

^m *Ibid.* p. 179.

ⁿ *Ibid.* p. 109, &c.

^o *Ibid.* p. 236.

a sort of artificial terrace, the representation of which, as given in the atlas of this voyager, reminds one a little of the *Hippas* of New Zealand. The village of Chelaskys, situated in Johnston's Straits, although composed of miserable huts, is ornamented with paintings, which appear to have a hieroglyphical meaning. This description of painting is diffused over the whole of the north-western coast.

The inhabitants of *Tchinkitane Bay*, called by the English *Norfolk Sound*, in King George's Archipelago, resemble, in stature and figure, those of Nootka; but their coarse, harsh hair, establishes a likeness between them and the more northern nations and the Esquimaux. The young people pluck out their beard, but the old allow it to grow. Their women wear an extraordinary kind of ornament, which gives them the appearance of having two mouths; it consists of a small piece of wood, which they force into the flesh below their under lip.^a These people show a great deal of address in their manner of

carrying on trade, and are exceedingly courageous in the whale fishery. Their tanning, carving, painting, and other arts, prove them to be an intelligent and industrious people. They preserve the heads of their dead in a kind of sarcophagus, ornamented with polished stones.^b

The moral sketch which we have now traced of the tribes of New Georgia and New Hanover, proves that their genius has been developed during many ages of liberty. We must allow that in the idioms,^c manners, and belief of these tribes, there is some similitude with the Aztecs, or Mexicans. Which of these two nations is the source of the other? Judicious criticism suggests that, to place the cradle of Mexican civilization in the midst of these tribes of fishermen, would be to hazard an important conclusion from a small number of equivocal facts. Another hypothesis, altogether absurd and contemptible, considers them as a colony of the Malays of Polynesia, with whom they have not the slightest physical resemblance.

^a Marchand's Voyage, (Fr.) t. 1 p. 243.

^b Dixon's Voyage round the World, (English) p. 181.

^c Scarcely, in idiom. Vater gives several dialects of each, but not VOL. II.—NOS. 73 & 74.

thing can be more dissimilar than the Aztec and New Georgian. The latter wants the great American characters of *epenthesis* and *composition*. Mithridates, Von Adelung, III. 65. 225—230.—Tr.

BOOK LXXVII.

THE DESCRIPTION OF AMERICA CONTINUED.

Regions of the North, and North-East; or the Country on Mackenzie's River, and the country round Hudson's Bay; Labrador, Greenland, Iceland, and Spitzbergen.

WHEN we quit the north-west region, cross the Rocky Mountains, and approach towards Hudson's Bay and the unknown frozen seas, we perceive an immense country, intersected with lakes, marshes, and rivers, to a greater extent than any other part of the globe with which we are acquainted. Few mountains rise above this savage and icy plain. The numerous waters of these countries may be reduced to two classes; some flow towards the unknown seas of the north, others roll their tributary streams to Hudson's Bay. Among the former, we observe the *Athapescow* or Elk River, and the *Unjigah* or *Peace River*. The first of these comes from the south, and loses itself in the lake of the hills, or Lake Athapescow; the second descends from the north-west plateau. When high, its waters flow into the Lake Athapescow; but when it is low, it receives the waters of that lake.^a The united river bears the name of the *Slave River*, and empties itself into the *Slave Lake*, from which issues Mackenzie's River, that runs towards a northern sea, or gulf, hitherto little explored. Late-ly, indeed, as was noticed in the former Book,^b the adventurous Franklin surveyed 600 miles of its coast, proceeding from the mouth of Copper-Mine River, almost directly to the eastward, in the parallel of 67° 30' north. At the warm-est season of the polar year, the greater part of it was girt with ice, and the land almost constantly covered with snow. The water approached so much to the saltness of the sea, that this experienced mariner does not seem to have been able to remark any appreciable difference. Tides were also observed. It abounds in islands, and no coast known affords more numerous or deeper indentations into the surrounding land. To these dreary regions, even the hardiest Indian hunters refused to accompany the English, who, nevertheless, met with frequent traces of Esquimaux, a race which, diminutive in stature and deficient in courage, every where seeks shelter amid the desolation of the pole.^c Slave Lake, which is more than a hundred leagues in length, is sprinkled with islands that are covered with trees resembling the mulberry. Mackenzie found them surrounded with ice in the middle of June. All these lakes and rivers unite to form one uninterrupted current of water, extending above 600 leagues in length, and which has a remarkable resemblance to the magnificent rivers of Siberia. One

^a The Unjigah forms a delta at its mouth, the southern branches of which communicate with the lake, and the northern with the Slave River. The level of this delta is so uniform, and the current of the river above so feeble, that the direction of the current in the branches communicating with the lake, varies according as the waters of the river or lake are highest.—Mackenzie.—P.

is tempted to inquire, why do such superb streams waste their fertilizing waters upon these frozen deserts? They manifest the power, and, we cannot doubt, the wisdom of their Creator.

The *Copper-Mine River*, discovered by Hearne, likewise flows towards the north, but is only of a moderate size, and from frequent falls and narrows, is scarcely navigable, even by canoes, near its opening into the Polar Sea. Among the crowd of lakes that lie in the immediate vicinity of Hudson's Bay, but which, nevertheless, have no outlet, Lake *Doobaunt* is particularly noticed.

Mississippi, or *Churchill River*, empties itself into Hudson's Bay, but is connected, by means of lakes, with Athapescow River, an invaluable communication, if it had taken place in a more temperate climate. The hydrographical system of Hudson's Bay extends very far to the southwest, which obliges us to include within our *northern zone*, part of those regions that were formerly comprised under the vague denomination of Canada. Two considerable rivers that come from the foot of the western mountains, form the River *Saskashawan*,^d which, after being interrupted by a great *rapid*, (it is thus that the Canadians name a long fall of water, with a gentle slope,) descends into Lake *Winnipeg*, a lake of more than sixty leagues in length, by thirty or forty broad. Its banks are shaded by the sugar-maple, and poplar; and it is surrounded by fertile plains, which produce the rice of Canada.^e This lake, which likewise receives the great River *Assiniboil*, or *Assiniboin*,^f united to the Red River, discharges itself into Hudson's Bay, by the *Nelson* and *Severn* Rivers. Lake Winnipeg is the Lake *Bourbon* of the *French*; and the River *Bourbon* is composed of the *Saskashawan* and the *Nelson*.

The extreme severity of the winter is felt even under the 57th parallel of latitude; the ice on the rivers is eight feet thick; brandy freezes; and, in consequence of the cold, the rocks split with a tremendous noise, fully equal to that of heavy artillery, and the shattered fragments fly to an astonishing distance. The temperature of the air is subject to the most capricious variations. Rain suddenly overtakes you, at the very moment when you are admiring the serenity of a cloudless sky; while, on the other hand, the sun will sometimes suddenly burst forth in the midst of the heaviest showers; and at its rising and setting, is preceded, or followed, by a cone of yellowish light. The *aurora borealis* sheds in this climate a light which, some-

^b Page 177.

^c Franklin's Journey to Polar Sea, 189—361. *passim*.

^d Saskatchiwine.

^e *Zizania aquatica*, wild rice.

^f Stone Indian River.

times mild and serene, sometimes dazzling and agitated, equals that of the full moon, and in both cases is contrasted, by its blueish reflection, with the fiery colour which sparkles in the stars.

These imposing scenes, however, serve only to augment the solemn melancholy of the desert. Nothing can be more frightful than the environs of Hudson's Bay. To whichever side we direct our view, we perceive nothing but land incapable of receiving any sort of cultivation, and precipitous rocks that rise to the very clouds, and yawn into deep ravines and barren valleys, into which the sun never penetrates, and which are rendered inaccessible by masses of ice and snow that seem never to melt. The sea in this bay is open only from the commencement of July to the end of September, and even then, the navigator very often encounters ice bergs, which expose him to considerable embarrassment. At the very time that he imagines himself at a distance from these floating rocks, a sudden squall, or a tide, or current, strong enough to carry away the vessel, and render it unmanageable, all at once hurries him amongst an infinite number of masses of ice which appear to cover the whole bay.^a

Hudson's Bay affords only a small quantity of fish, and all attempts at the whale-fishery have been unsuccessful. Shell fish are likewise scarce. But the lakes, even those farthest to the north, abound in excellent fish, such as the pike, sturgeon, and trout; and their banks are inhabited by aquatic birds, among which are observed several species of swans, geese, and ducks.

The English, under Franklin, in 1819, found abundance of fish in Copper-Mine River, at its opening into the Polar Sea, though that sea itself scarcely afforded them any supplies. Of the fish and fowls which frequented these lakes, an interesting account has been given by Dr. Richardson, the surgeon and naturalist to the expedition.^b

The principal quadrupeds are the buffalo, musk-ox, moose-deer, rein-deer,^c beaver, wolf, foxes of different colours, the lynx or wild cat, white, black, and brown bears, the wolverine, otter, jackash,^d wejack, pine-martin, ermine, skunk, musk-rat, porcupine, hare, rabbit, wood-squirrel, climbing-squirrel, and different species of mice.

The banks of Churchill River, principally produce some berry-bearing shrubs, the gooseberry bush, three species of vaccinium, the black currant, strawberry, and a small species of wild rose, the burdock, wood-sorrel, dandelion, a species of cistus, a species of box, different kinds of moss, several descriptions of grasses, and peas. The trees which compose the forests of this savage country, present very few species; namely, the pine, dwarf larch, poplar, willow, and dwarf birch. Farther to the west, the latter is very numerous. In the country of Athapescow, the pine, larch, poplar, birch, and alder, acquire a greater height; but round Lake Winnipeg flourish almost all the trees of Canada proper. Mackenzie has there made a very extraordinary observation. When the ground is cleared by means of fire, those places that had been formerly covered with pine and birch trees, no longer produce any thing but poplars, although not a single tree of the kind had ever grown there before. The banks of the Red River, the Assiniboil, and the Saskashawan, appear

to be susceptible of several kinds of cultivation. Barley and rye have ripened there, and hemp becomes very fine; but their great distance from the ports of Canada, and the little advantage to be derived from those of Hudson's Bay, obstructed as they are with ice during two-thirds of the year, would greatly embarrass an infant colony, both in receiving supplies, and in exporting its productions. It can only be by a gradually progressive advance, that the European population of Canada will ever penetrate as far as these regions.

It is merely for a short period that the avidity of gain attracts Europeans to this country. The fur trade had enriched the Canadians under the dominion of the French. The English have formed two companies here, that of Hudson's Bay and the North-West Company. The Mediterranean Sea, which they have denominated Hudson's Bay, had been visited in 1610, but it was in 1670 that a Company obtained a charter, bearing the privilege of forming establishments there. This Company claims a right to vast territories, situated on the west, the south, and the east of the Bay, and extending from 72° to 114° 38' west of London.^e The exportations of the Company amount annually to 16,000*l.* Sterling; and the importations, which greatly augment the revenue of government amount, in all probability, to 30,000*l.* Sterling. But the profits of this society have been considerably diminished by the North-West Company, lately established at Montreal.

It is asserted that a chain of heights, which gives rise to the rivers running to the north and south, as far as Lake Winnipeg, serves as a line of separation between Canada and the territory of the Hudson's Bay Company; but the limit is not fixed in a legal manner. The Hudson's Bay Company has not penetrated to the west beyond Hudson's House, while, on the contrary, the North-West Company, more courageous and more enterprising, has almost reached the shores of the Pacific Ocean, and has extended itself along Mackenzie's River, towards the Arctic Sea, or land. But the Hudson's Bay Company, in virtue of its charter, pretends to a sovereignty over all the rivers that flow into Hudson's Bay; and upon this principle, gave up a few years ago, to Lord Selkirk, its chief stockholder, a vast territory on the banks of Lake Winnipeg, and the River Assiniboil. The colony which this nobleman conducted thither, has experienced strenuous opposition on the part of the fur traders of Canada, whom it wished to prevent from hunting within its limits. They have even had recourse to violence; and the colony has been obliged to dissolve itself; but the two parties, after pleading before the Canadian tribunals, have at length settled their respective claims by a union of interests.

The countries adjacent to Hudson's Bay, together with Labrador, have been denominated, by a tribute of homage by no means flattering to the mother country, *New Britain*; but this name has not been adopted in the charts. The name of Nova Dania also speedily disappeared. The country situated to the west of the bay, has generally been called *New Wales*, and that to the east, the *East Main*. To the south, James' Bay extends a hundred leagues into the country. It is in the neighbourhood of this bay that

^a Voyages of Ellis, Middleton, Robson, Hearne, Ross, Parry, &c. &c.

^b Franklin's Journey to the Polar Sea. Appendix.

^c "L'elan, le daim," applied to European animals, elk, fallow-deer; but the two species of deer, natives of Hudson's Bay, are the moose, (the elk of Europe,) and the caribou, or rein-deer.—*Ed. Encyc.*—P.

^d A small species of otter.

^e "72° to 117° W. of Paris," (69° 39' 45" to 114° 39' 45" W. of London.) From 70° to 115° W. of London. (*Pinaker*.)—P.

the most important establishments are situated, such as *Albany Fort*, *Moose Fort*, and the factory of *East Main*.^a Farther to the south, and on the confines of Upper Canada, we find *Brunswick* house, *Frederick* house, and some others. To the north is *Severn* house, situated at the mouth of the river of that name. *York Fort* is built on the Nelson River, and farther to the north, is *Churchill Fort*, which is supposed to be their last establishment in this direction. *Fort Chippewyan*, on Lake Athapescow, belongs to the North-West Company, which possesses several others on the banks of Lake Winnipeg, and the Rivers Assiniboil, Saskatchewan, and Mackenzie. These establishments, far from permanent, are often even without any particular name, and consist of nothing more than a house, surrounded by pallsades.

Three indigenous nations divide between them these melancholy regions. The *Esquimaux* inhabit the country between the gulf called the *Welcome*^b and Mackenzie's River, and probably as far as Behring's Straits. To the south they extend as far as Slave Lake, and to the north, the territory which they occupy is bounded by an icy sea, if such a sea really exists, or else they extend their wandering excursions into a frozen desert.^c A permanent establishment of this nation was met with by Captain Ross at Prince Regent's Bay, in latitude 76° N.;^d and their huts were observed by Captain Parry to be numerous in many parts of Melville Island, in latitude 75° N. The latter officer observed them frequently in the islands of the Archipelago of Barrow's Straits, though their timidity prevented any intercourse.^e Little, squat, and feeble, the complexion of these Polar men partakes less of a copper hue, than of a reddish and dirty yellow. Their huts, which are of a circular form, are covered with deer-skins, and can only be entered by creeping on the belly. Yet the rude necessities of the climate have suggested to this feeble race many contrivances which do honour to their ingenuity. The *snow-house*, or the comfortable, and, comparatively speaking, commodious dwelling, which they construct from the frozen snow that surrounds them, affords a favourable example. The rapidity and neatness with which they raise these edifices, and render them impervious to the rigorous atmosphere around, is truly admirable; and these edifices, when finished, afford their inhabitants a similar protection to that which the vegetable world receives from a covering of snow.^f The *Esquimaux* of Prince Regent's Bay, and of the Arctic Highlands, are entirely ignorant of boats and canoes, affording, it is said, a unique instance of a fishing tribe unacquainted with the means of floating on the water. Ross advances strong grounds for considering them as the true aboriginal race, from whence all other *Esquimaux* are derived. They seem utterly ignorant of the nations to the south, and may be considered as an independent tribe, separated by almost impassable mountains from the regions of South Greenland, and extending beyond the most northern inlet of

Baffin's Bay. They are almost entirely destitute of religious ideas.^g The other tribes have canoes made of the skins of the sea-calf,^h which sail with great swiftness. These savages patiently work a gray and porous stone into the shape of pitchers and kettles. The edges of these vases are elegantly ornamented.ⁱ They preserve their provisions of meat in bags, filled with whale oil. Those who live near the mouth of Mackenzie's River, shave their heads, a peculiar custom, but not sufficient of itself to prove an Asiatic origin.

The *Chipiwans*, who are likewise called *Chippaways*, and *Chopewyans*,^k have been observed by Mackenzie between Slave Lake and Lake Athapescow. They appear to extend as far as the rocky mountains on the west, and to the sources of the Missouri on the south-west. The *Snake* Indians, the *Cattanahowes*, and other tribes, appear to belong to the same nation. A branch of the *Chippaways* has extended itself into the United States. Although somewhat less copper-coloured, and having rather less beard than the neighbouring nations, the *Chipiwns* have not the Mongol complexion. Their hair is straight, like that of the other Americans, but is not always of a black colour. They make themselves a dress of deer skin, which is very warm and very durable.^l Although extremely pacific amongst themselves, they are continually at war with the *Esquimaux*, over whom the superiority of their numbers gives them great advantage. They put all those to death who fall into their hands; for fear has established the principle of never taking any prisoners. The *Esquimaux* entertain a continual apprehension of these *Chippaways*,^m who, in their turn, live under subjection to the *Knistenaux*, a nation who are, or lately were, far less numerous than themselves.

The country which the *Chipiwns* call their own, possesses very little vegetable earth; and, accordingly, it produces scarcely any wood or grass. The lichen, however, which affords food to the deer, is found in considerable quantity. Another species of lichen, named *Tripe de Roche*, grows on the rocks, and serves as food to the inhabitants. They boil it in water, and when it is dissolved it forms a glutinous and tolerably nourishing substance. The English, in 1819, found it act as a cathartic. Fish abound in the lakes of the *Chipiwns*, and herds of deer cover their hills; but although they possess more foresight, and are the most economical of all the savages of North America, they suffer a great deal in some seasons from want of food.

The *Chipiwns* affirm that they are descended from a dog; and, accordingly, they respect this animal as sacred. They represent the Creator of the world under the figure of a bird, whose eyes dart lightning, and whose voice produces the thunder. They have a traditionary belief in a deluge, and in the great longevity of the first inhabitants of the world.ⁿ

The tribes designated by Hearne under the name of the

^a East Main House.

^b Roe's Welcome.

^c Mackenzie's Voyage to the Pacific Ocean, t. III. p. 341. (French) Hearne's Journey to the Northern Ocean, t. I. *passim*.

^d Voyage to Arctic Regions, vol. I. p. 104. by Captain Ross.

^e Parry's Second Voyage.

^f Franklin's Journey to the Polar Sea. Dr. Richardson's Journal, *passim*.

^g Ross, vol. I. p. 177.

^h *Phoca vitulina*, common seal, sea-dog.

ⁱ Hearne, t. II. p. 23, 28, and 29.

^k *Chippewyans*, *Chipawans*. This tribe, although considered as allied in language, is very distinct from the *Chippeways* on the upper lakes in Canada and the United States, from whom they are separated by the *Knistenaux*. They inhabit the country between 60° and 65° N. and 100° and 110° W.—(*Mackenzie*).—P.

^l Hearne, t. I. p. 284.

^m Franklin's Journey, p. 358.

ⁿ For an excellent account of these and the succeeding Indians, see Dr. Richardson's first Journal, in Franklin's Journey to the Polar Sea.

Northern Indians, and who inhabit the country between Copper-Mine River and Hudson's Bay, as far as Churchill River, may be looked upon as a branch of the Chipiwans. These Northern Indians are, in general, of an ordinary stature, and are well proportioned and strong; but they want that activity and that suppleness which characterize the Indian tribes who inhabit the southern and western shores of Hudson's Bay. The colour of their skin somewhat resembles dark copper. Their hair is black, thick, and straight, like that of other Indians. Like the Chipiwans, they attribute their origin to the amours of the first woman with a dog, who, during the night, was transformed into a beautiful young man.^a

Though they display great art in extracting little presents from strangers, they are, nevertheless, very peacefully disposed, and never become intoxicated. Amongst them, woman is considered as a mere beast of burthen. If any one ask a northern Indian in what beauty consists, he will reply, that a broad flat face, small eyes, and hollow cheeks, each of which is marked with three or four black streaks, a low forehead, a long chin, a large and hooked nose, a dark complexion, and pendant breasts, constitute genuine beauty. These charms are greatly enhanced in value, when the fair possessor knows how to prepare all sorts of skins, and make dresses from them, and is able to carry a weight of from a hundred to a hundred and forty pounds in summer, and can draw a much greater load in winter. The mother of *Greenstockings*, a beauty somewhat of this description, who attended Franklin's expedition in 1819, took alarm at the sketch prepared by the draughtsman, lest her charms should tempt the king of England to carry off her daughter from the country! The prevalence of polygamy procures them a greater number of these submissive, faithful, and even affectionate servants. Upon receiving an affront from any one, they challenge their enemy to wrestle. Murder is very rare amongst them. Any one who has shed the blood of his countryman, is abandoned by his kinsmen and friends, and is reduced to a wandering life; and whenever he issues from his place of concealment, every person exclaims, "There goes the murderer!"

The *Knistenaux*, denominated *Cristinaux* by the early Canadians, and *Killistonoës* by some modern writers—*Crees* by the English—wander over or inhabit all the country to the south of the lake of the hills as far as the lakes of Canada, and from Hudson's Bay to Lake Winnipeg. The *Knistenaux* are of a moderate stature, are well proportioned, and possess a remarkable degree of activity. Black and piercing eyes animate their agreeable and open countenance. They paint their face of different colours. They wear a simple and convenient dress, cut and ornamented with taste; but sometimes they hunt, even during the severest cold, almost entirely naked. It appears that, of all the savages of North America, the *Knistenaux* have the handsomest women. Their figure is well proportioned, and the regularity of their features would obtain them admiration, even in Europe. Their complexion is not so dark as that of other savage women; because their habits are much more cleanly. These Indians are naturally mild, honest, generous, and hospitable, when the pernicious use of spirituous liquors has not changed their natural disposition. They do

not look upon chastity, however, as a virtue, nor do they imagine that conjugal fidelity is at all necessary to the happiness of the married state. Accordingly, they offer their wives to strangers, and exchange them with each other, as Cato is said to have done. The fogs which cover their marshes, are believed to be the spirits of their deceased companions.

The eastern coasts of Hudson's Bay form a part of the peninsula of *Labrador*. This country, almost of a triangular shape, is bounded on the east by the arm of the sea called *Davis's Straits*, and on the south by Canada, and the Gulf of St. Lawrence. Thus detached from the arctic lands, Labrador ought to partake, in some degree, of the nature of the temperate cold regions; but whether it is owing to the elevation of its mountains, with which we are still almost unacquainted, or to the influence of the perpetual fogs that cover the neighbouring seas, it is a country fully as frozen as those to the west of Hudson's Bay. Cartwright assures us that he met with a family of the natives living in a cavern hollowed out of the snow. This extraordinary habitation was seven feet high, ten or twelve in diameter, and was shaped like an oven. A large piece of ice served as a door. A lamp lighted the inside, in which the inhabitants were lying on skins. At a short distance was a kitchen, likewise constructed of snow.^b They describe a circle on the frozen snow, and cutting it into segments with their knives, build it up with great regularity, till the blocks of snow meet at the top, and constitute a not ungraceful dome. All that is known of Labrador is a mass of mountains and of rocks, intersected with innumerable lakes and rivers.^c Lake *Aschkunipi*, which is probably the *New Sea*^d of D'Anville's maps, appears to flow both into Hudson's Bay, and the Gulf of St. Lawrence. All the waters of this region abound in a remarkable degree with fish; among which are noticed the salmon, trout, pike, eel, and barbel. The bears combine together in numerous herds, to catch the salmon, near the cataracts, where great numbers are stopt in their ascent, and are exceedingly relished by that animal. Some of them plunge into the river, and pursue their prey under water, only reappearing at the distance of one or two hundred paces, while others, again, more indolent, or less active, appear as if they had come merely to enjoy the spectacle. Beavers, as well as rein-deer, absolutely swarm. The air is milder in the interior of the country, where some appearance of fertility is perceived. According to Curtis, the valleys are covered with pines and pinasters. A great deal of wild celery, and many antiscorbutic plants, grow there. No botanist has examined this extensive country. But the most extraordinary fact that has been transmitted to us is, that the boggy land on the coast becomes covered with grass, after having been fattened by the carcasses of the seals which are cast ashore. This, however, requires further confirmation. The southern parts of Labrador might be cultivated, but it would be difficult to defend the colonists from the bears and wolves, and the cattle could not quit their stable for a longer period than three months in the year. The eastern coast presents nothing but a continued precipice of barren rocky mountains, which are covered in some places with a black turf, and a few stunted plants. It is over-

^a Hearne's Journey to the Northern Ocean, t. II. Franklin, &c.

^b Cartwright's Journal of Transactions, &c. vol. I. For the construction of these dwellings, see Richardson's Journal, in Franklin, Parry's Second Voyage, &c.

^c Roger Curtis's Particulars of Labrador, in the Philosophical Transactions, vol. LXXIV. Part II. p. 188.

^d "Mer Nouvelle."

spread with fogs, which, however, appear not to continue so long as they do in Newfoundland.^a Although the greater part of their water is derived from melted snow, *goitre* is a disease unknown amongst the inhabitants of this region. The eastern coast is covered with thousands of islands, inhabited by aquatic birds, particularly the duck from which the eider down is procured.

The most celebrated production of this country is the Labrador felspar, discovered by the Moravian brethren in the middle of the lakes of the elevated district of *Kylgaped*, where its vivid colours were reflected from the bottom of the water. The rocks are generally granitic. The district of *Ungawa*, situated to the west of Cape *Chudleigh*, abounds in red jasper, hematites, and pyrites.

The Esquimaux have peopled all the northern and eastern coasts of this country, and live on fish.

It is amongst these people that the Moravian brethren have founded the three settlements of *Nain*, *Okkak*, and *Hoffenthal*.^b Upon their arrival, the Esquimaux were in the habit of putting their orphans and widows to death, to prevent them from being exposed to the risk of dying of hunger. The missionaries, after teaching them a variety of useful arts connected with fishing, built a magazine, in which each of the natives might deposit his superfluous stores, and prevailed upon them to set aside a tenth part for widows and orphans. This is the true way to convert a savage people.

A peculiar tribe inhabits the southern mountains, who have been compared to the Egyptians;^c but a mixture with the French Canadians effaced their characteristic features before they were examined with sufficient care. This people have adopted the Catholic religion, and live on rein-deer and game. They have received no other name than *Mountaineers*. Another tribe, called *Escopics*, inhabit the western part.

To the north-east of Hudson's Bay, some arms of the sea, almost perpetually frozen, conceal from us an archipelago of several large islands, among which are noticed, those named *James*, *Barren*, *Northmain*, *Southampton*, and *Mount Raleigh*. To the south, Hudson's Strait separates these islands from Labrador; to the east, Davis's Straits divides them from Greenland; to the south-west, they are washed by the Gulf called *Welcome* by the English, and *Mare Christianeum* by the Danish voyager Munk, who was the first to penetrate it; but to the north-west, and north, these lands continued almost absolutely unknown till the splendid discoveries of the English in 1818, 1819, 1820, 1821, 1822, 1823, by the great navigators mentioned at the beginning of this Book, who, undaunted by the appalling horrors of the elements around them, have penetrated far into the secret, untrodden regions of the pole. Captains James and Fox, who, in the seventeenth century, entered the arm of the sea which separates James, or Cumberland Island, (if it be an island,) from Southampton Island, and of which *Repulse Bay* forms one extremity, found all their efforts to advance any farther prove fruitless, in consequence of the fixed ice which, at that period, as well as at the present day, obstructed this channel. The frightful picture of the sufferings to which cold and want of food

exposed these navigators, appears to have banished, for a long time, all thoughts of any fresh attempt. Yet such attempts, were they successful, would be deeply interesting to geography, for, it is not improbable that this passage communicates with a sea, in all likelihood, the inland sea described by Hearne. The perpetual accumulation of ice, between these two islands, in 65° of latitude, while, on the other hand, it is quite customary to ascend Davis's Straits as far as 72°, and Baffin's Bay, lately, to its northern extremity in 76°, appears to indicate here the opening to an inland sea, or perhaps the mouth of a river, which serves as an outlet to extensive lakes.

In 1818, Captain Ross completed the circumnavigation of Baffin's Bay, the northern extremity of which, the bottom of *Smith's Sound*, he estimated to be in latitude 77° 45'. The ship's latitude at the time was 76° 46½', longitude 75° 21' 45".^d The middle of this oblong bay, seems every where occupied with impenetrable ice, between which and the land is the only passage for ships. It was by following this opening that the survey of the coast was made by the ships *Isabella* and *Alexander*, under the command of Captain Ross; and the positions ascertained, the appearance of the land, the situation of the islands, and the general form of the bay itself, thus established, afford a complete verification of the lately disputed discoveries of Baffin.^e Still many openings on its shores remain to be explored, particularly on that of the western side. In prosecution of this object, and subordinate to the great desideratum of a north-west passage, Captain Parry sailed into Lancaster Sound, latitude 73° 50', in (July 30,) 1819; and by following its course almost directly to the westward, was enabled to proceed along a channel, or archipelago, which is entered by Barrow's Strait, as far as Melville Island, in latitude 74° 30' N. longitude 114° W. This channel presented several extensive openings to the north and south; to the north, several passages between the different islands of this new archipelago, which has been named the *North Georgian*, in honour of his present Majesty, George the IV. of Great Britain: to the south, *Navy-board Inlet*, *Admiralty Inlet*, and *Prince Regent's Inlet*. The latter is two degrees of longitude in breadth at the narrowest, and gradually widening southwards and westwards, has been supposed to communicate with *Repulse Bay*, and thereby to conjoin Hudson's Bay with Lancaster Sound, and to insulate the whole western coast of Baffin's Bay. It is also suspected, as we have just said, that both communicate with the sea of Hearne, and with that ocean which washes the shores to the east of the entrance of Copper-Mine River, ascertained by Franklin in the same summer, 1819. Captain Parry's second voyage in 1822, 1823, being directed to *Repulse Bay* and Fox's inlet, where the ice seems almost perpetual, has been completely frustrated; but it is at present in the contemplation of the British Government to despatch the same navigator to explore Prince Regent's inlet from Barrow's Strait southwards. A passage to the Arctic Sea of Franklin may thus be still within the reach of discovery.

The country to the north of Barrow's Straits, and continuous with Greenland, Parry has named *North Devon*.

^a De la Trobe's Meteorological Journal. Philosophical Transactions, vol. LXVIII.

^b David Crantz's History of the Moravian Brethren, continued by Hegner, p. 125. 139. 321. (Barby, 1791.)

^c Gypsies. "The mountaineers resemble gypsies, with somewhat

of French features, from a mixture of Canadian blood."—*Pinkerton*.—P.

^d Vol. I. p. 209, 210.

^e Pinkerton's Geogr. 8vo. p. 534—651.

The islands of the New Archipelago, or Georgian Islands, as they open successively to the west, are *Cornwallis*, *Griffith*, *Somerville*, *Browne*, *Lowther*, *Garrat*, *Baker*, *Davy*, *Young*, *Bathurst*, *Byam Martin*, *Sabine*, *Melville*.^a Cornwallis, Bathurst, and Melville Islands, are the largest, the latter extending from 106° to 114° of longitude from Greenwich, and from 74° 25' to 75° 50' of northern latitude. It is about 240 miles long, and 100 miles in breadth. Dreary masses of sandstone stratified horizontally, and exhibiting marks of rapid and recent decomposition in the perpendicular fissures by which they are intersected, naked of every covering except snow and a few lichens, form the rugged coast which presents itself to the navigator of the Georgian Archipelago. In the ravines formed between these masses by the annual thaw, traces of a vegetation, more or less vigorous according to the soil, appear during the brief summer, which allures to these regions, the reindeer, ducks, geese, swans, ptarmigans, waterfowl, hares, and musk oxen, which the extreme rigour of the polar winter had driven to seek food and shelter in the woods of North Canada. A tribe of Esquimaux^b seems likewise to resort hither in summer, and the relics of musk oxen and other indigenous animals strewed around their deserted huts, shows that they do not subsist by fishing alone, but probably repair to these islands with the prospect of hunting during the summer season, when game is abundant even in the solitary insulated valleys of Melville Island. It is improbable, however, that with all their ingenuity and hardness, they have ever been able to withstand the extreme severity of its winter. On the 15th of February, 1820, in *Winter Harbour* of Melville Island, the thermometer stood for some time at *minus* 55° of Fahrenheit, the greatest natural cold hitherto observed; and the mean temperature of that entire month was 32° below Zero, and of the whole year only 1°.33 above it.

At Melville Island no tree or shrub refreshes the eye, and though the soil seems rich in the valleys, grass, moss, a few lichens, sallads, and saxifrages, constitute almost the whole of its botany. Clay, slate, and slaty sandstone, are its aggregate minerals. The general phenomena of its winter differ nothing from the usual meteorology of the Arctic circle. From its vicinity to the magnetic meridian, the compass becomes here almost useless, remaining in that position in which it is placed by the hand.^c Were this pleasing confirmation of our theory of the obscure laws which govern the magnet the only fruit of the English expedition, it had not been undertaken in vain; but it has, besides, expanded the bounds of geographical knowledge; added greatly to the resources of the whale fishery;^d and, above all, it has thrown a new splendour over the nautical glories of Britain, and enhanced the dignity and value of human nature. It has proved that man, enlightened by the arts, is more than a match for the obstacles of nature in her wildest ferocity.

^a See Voyage for the Discovery of a North-West passage, in the years 1819, 1820, by Captain W. E. Parry, 4to. chart. p. 29.

^b Ibid. p. 202.

^c Ibid. p. 37, 38, 42.

^d Ibid. 300, 301.

^e In Danish and Icelandic it is written *Grönland*, from *grön*, green, and *land*, land. It is improper to preserve the French orthography, *Groenland*, since it has become the source of a false etymology. *Groin*, in the ancient Scandinavian, corresponds with *crecens*, *germinans*, and not with *concreta*. Thus, Groinland, if such a word existed, would signify *terra germinans*, and not *terra concreta*.

^f *Hvit*, white; *serk*, shirt.

^g The Danish settlements in Greenland, (all on the W. coast.) are 22 in number, including the Moravian establishments.—*Giesecke*.—P.

Whether the two countries be united or not, the description of *Greenland*^g neither can, nor ought at present to be separated from that of America.

It will be hereafter shown, in the *History of Geography*, that the existence of the vast coast commonly traced opposite to Iceland, under the name of *Old Greenland*, rests on no better authority than an hypothesis of Torfæus, an Icelandic antiquary. This coast has, most likely, been always buried in the same ice which still prevents all access to it. The colonies of the Ancient Norwegians of Iceland were all situated to the west of Cape Farewell, which is the mount *Hvitserk*^f of these precursors of Christopher Columbus. Ancient Greenland corresponds with the part at present known and occupied by the Danes, and a tribe of Esquimaux. The Danish establishments consist of about twenty factories,^g scattered along the coasts, and divided into two inspectorships. The most advanced post towards the Pole is *Upernavik*, in 72° 30' N. latitude; and next to this are *Umanak*, *Godhavn*, on the island of Disco, *Jacobshavn*, *Holsteinborg*, *Sukkertoppen*, *Gothaab*, the principal and the oldest of these colonies, situated in 64° 10', with an excellent harbour; and, lastly, *Frederikshaab*, and *Julianeshaab*. The Moravian brethren have three settlements here, one of which, called *Lichtenau*, is situated quite close to Cape Farewell. The population which, in 1789, had been found to be five thousand one hundred and twenty-two persons, amounted in 1802, to five thousand six hundred and twenty-one; but this enumeration, made after an epidemic, was in other respects also incomplete.^h Vaccination, which has been recently introduced, will henceforth secure this people from the ravages of the small pox. It is only the coast, for an extent of three hundred leagues, that is inhabited; neither the Danes nor the Greenlanders having yet passed the chain of mountains which cut off their access to the interior. There are some wandering Greenlanders, however, who occasionally establish themselves at a considerable distance to the north of Upernavik, and who may be connected with the *Arctic Highlanders*, or northern Esquimaux, seen by Ross.^k

This country, in reality, is nothing more than a mass of rocks, intermingled with immense blocks of ice, thus forming at once the image of chaos and of winter. *Icy Peak*,^l an enormous mass of ice, rises near the mouth of a river, and diffuses such a brilliancy through the air, that it is distinctly perceived at the distance of more than ten leagues. Lofty spires, and an immense vault, give this edifice of crystal a most magic appearance. An uninterrupted chain of mountains traverses the part of Greenland with which we are acquainted. There are innumerable gulfs, but none of them advances towards the eastern coast.^m The three points called the *Stag's Horn*, is descried at sea at the distance of five and twenty leagues. The rocks are full of fissures, which, in general, are perpendicular, and are rarely more than half a yard in breadth, and contain a

^b Report on the present condition of Greenland, in the Danish Ministerial Gazette, 1803, Numbers 15 and 16.

ⁱ The present population of Danish Greenland is 6500.—Note of M. B.

^k The arctic Highlanders are said by Ross to have had no knowledge of any human beings but themselves, and to have never seen a boat or vessel, till they were visited by him. It is only the first clause of the sentence which belongs to the original, and it undoubtedly refers to the proper Greenlanders.—P.

^l "Pic de Glace." *Ice Blink*, *Pinkerton*—P.

^m Their general direction is N. E. and some of them reach to the central glacier, which cuts off all communication between the two coasts.—P.

great quantity of spar, quartz, talc, and garnets. The rocks are commonly composed of granite, clay slate,^a and potstone, arranged in vertical beds.^b The *Greenland Museum* at Copenhagen has received from this country a very rich ore of copper, schistus of the nature of mica, a coarse marble, and serpentine, together with asbestos, amianthus, crystals, and black schorl.^c Greenland likewise furnishes us with a new and curious mineral, the *fluatite of alumine*. A vast mine of sea-coal^d has been discovered in the island of Disco. Three hot springs are the only volcanic indications that have hitherto been observed. During the short season of summer, the air, which is very pure on the mainland, is obscured in the islands by fogs. The flitting glimmer of the aurora borealis, in some degree softens the gloomy horror of the polar night. What has been termed the frost smoke, is a vapour which rises from the crevices of marine ice. The rare occurrence of rain, the small quantity of snow, and the intense degree of cold produced by the east-north-east wind, lead us to suspect that the most eastern parts of Greenland form a great archipelago, incumbered with perpetual ice, which, for many centuries, has been piled together by the winds and currents.

There is some land that admits of cultivation; and probably barley might be made to grow in the southern part of the country. The mountains are covered with moss on the northern side, but the parts that have a southern exposure produce very good herbs, gooseberries, and other berries, in abundance, and a few little willows and birch. Not far from Julianeshaab, is a valley covered with birch; but the tallest of the trees are only eighteen feet high. Near the Danish colonies cabbage and turnips are cultivated.

Among the animal kingdom we meet with large hares, which are excellent eating, and afford a good fur; reindeer of the American variety, white bears, foxes, and large dogs, that howl instead of barking, and are employed by the Greenlanders in drawing their sledges. An immense number of aquatic birds live near the rivers, which abound with salmon. Cod, turbot, and small herrings, swarm in every direction in the sea. The natives have been supplied with nets, and now begin to experience their utility. In north or west Greenland, the Danes and natives go in company to the whale-fishing; but this tumultuous, and, to the natives, far from lucrative occupation, spreads vice and misery through this district.^e The natives of the south confine themselves to hunting the seal. The flesh of this animal is their principal food; its skin furnishes them with dress, and at the same time they construct their boats of it; thread is made of its tendons, and its bladder is converted into bottles; its fat is sometimes used as a substitute for butter, and at other times for tallow; and even the blood itself is considered by the Greenlander as excellent for making broth; in fact, he cannot possibly comprehend how any one can live without the seal, which, to him, is like the bread-fruit tree to the Otaheitan, or wheat to the inhabitant of Europe.

^a "Quelques pierres argileuses;" "some sandstone." (*Pinkerton*)—P.

^b Granite, gneiss, and mica slate, are the most abundant rocks in Greenland. Clay slate is rare. Porphyry, selenite, and primitive trap, are abundant in the southern parts, and flint trap covers the most northern part of the W coast, to 76° N occupying Disko Island, and the adjoining islands and shores.—*Giesecke*—P.

^c David Crantz's History of Greenland. Paul Egede's New Account of Greenland; Copenhagen, 1790.

The Greenland Company, established at Copenhagen, estimates its annual revenue at 140,000 rix-dollars, (20,000 to 25,000 pounds sterling;) and the exportations alone have amounted to 50, or 100,000 rix-dollars, without including the produce of the whale fishery. The expenses of the company are estimated at about 16,000 pounds Sterling.^f

The natives are of a very low stature, have long black hair, small eyes, a flat face, and a yellowish brown skin, evidently indicating them to be a branch of the Esquimaux or Samoiedes of America. This connexion is particularly proved by their language, which is also remarkable for the copiousness of its grammatical forms. The particles and inflections are as numerous and as varied as in the Greek; but the rule which directs them to incorporate all the parts of speech in the verb, gives rise to words of a disproportionate length. The consonants *r*, *k*, and *t*, predominate in this language, and produce, by their frequent repetition, very harsh sounds.^g It must be observed, however, that the Greenlanders of the north of Greenland speak a dialect almost unintelligible to the inhabitants of the south. Their dialect is named *Humooke*.^h The Greenland women, like those of the Caribs, employ words and inflections, which none but themselves are permitted to use. The Greenlanders sometimes call themselves *Innuak*, or *brothers*; but their true national name appears to be *Kalalit*, and they generally designate their country by the appellation of *Kalalit Nunet*.

The Greenlanders have not preserved any positive trace of a communication with the Scandinavian colony, whose establishments they invaded and destroyed. The sun, they consider to be a goddess or deified female, and the moon, a man, conformably with the belief of the Goths, which differed from that of the other Scandinavians; but as we find a God called *Lumus*, or *Mên*,ⁱ among even the classical nations themselves, this analogy either proves too much or nothing. As to ourselves, we have, on the contrary, recognised in the Greenlanders, a crowd of characteristic circumstances, which demonstrate their connexion with the Esquimaux, even with those that live at the remotest distances from them. The fishing implements employed by the inhabitants of Russian America, among others, are made exactly like those of the Greenlanders. Both of these people, too, make use of the bladder of the sea-dog, distended with air, and attached to the javelin with which they strike the whale, in order that it may thus serve to prevent the animal, when once he is wounded, from remaining any length of time plunged under water.^k A similar invention observed both at the eastern and western extremity of North America, must lead us unavoidably to infer an habitual communication between those distant tribes. The little boats used by the inhabitants of Oonashka, in Prince William's inlet, (the Tchugatchian Gulf of the Russians,) by the Esquimaux of Labrador, and the Greenlanders, are all precisely of the same construction, and resemble a box formed of slight branches, and covered on every side with the skin of the sea-dog. They are

^d Brown coal—*Giesecke*.—P.

^e Ross, vol. I. p. 64, 65.

^f Note on the Commerce of Greenland, in the Danish *Minerva*.

^g Greenland Dictionaries and Grammars, by Egede.

^h Ross's Voyage to Arctic Regions, I. p. 109.

ⁱ *Mên*.

^k Hans Egede's History of Greenland, chap. VII. (in Danish.) La Peyrouse's Voyage round the World, chap. IX. Hist. de la Géographie, p. 402.

twelve feet long, but only a foot and a half wide. In the middle of the upper surface there is a hole surrounded by a wooden hoop, with a skin attached to it, which admits of being drawn together like a purse, by means of a thong. It is in this hole that the rower places himself. Supplied with a single oar, which is very thin, three or four feet long, and becoming broader at each end, the navigator, or to speak more correctly, the man fish, paddling rapidly to the right and left, advances in a straight line across the foaming waves in the midst of the tempest itself, without incurring more risk than the whales and seals of whom he is become the companion and rival. This invention, which was admired by Captain Cook, and is adopted in part by the Norwegian and Danish pilots; could not possibly have made its appearance by mere chance under exactly the same form, among all the tribes of the northern extremities of America. These tribes, consequently, must have the same common descent, and must long have communicated together.^a

We shall seize this opportunity to explain a passage from the lost writings of Cornelius Nepos, which has been quoted, with some variations, by Pliny, and Pomponius Mela.^b "A king of the Suevi, according to the former, or of the Boii, according to the latter, made Quintus Metellus Celer, then Proconsul of Gaul, a present of some *Indians*, who," Mela asserts, "had been thrown by a tempest on the coast of Gaul;—having," as Pliny adds, "been thus hurried away by the storm, while engaged in a trading voyage in the Indian Ocean." The Romans concluded from this circumstance that, coming, as these savages did, from India, it was practicable to make the tour of Asia and Europe round the north, by traversing the imaginary ocean which, as they supposed, occupied the site of Siberia and of the north of Russia. To us, this explanation is inadmissible; but the fact still remains, that Indians, or dark-complexioned people of some nation or other, reached the coast of Germany or Gaul. In all probability, they were Esquimaux, either from Labrador or Greenland. The same circumstance again occurred in 1680 and 1684. Some Greenlanders arrived at the Orkney islands in boats, constructed in the manner which we have just described.^c They were mistaken for Laplanders, and, consequently, were called *Finn-Men*; but their boats, preserved in the College Museum at Edinburgh, and in the church of Barra, prove that they came from Greenland.

The present character of the Greenlanders is an indefinable mixture of good and bad qualities; while their attachment to their national customs, opposes the influence of foreign civilization. The Greenlanders bitterly accuse the Danes and other navigators of having brought among them the double scourge of small-pox and spirituous liquors. The present well-regulated Danish administration follows a plan of colonization calculated for establishing order and happiness; but the ancient defects and modern vices of the Greenlanders present great obstacles to the system. Almost entirely destitute of every idea of religion and of law, our religious worship appears, in their eyes, nothing

but a useless ceremony, while they look upon our criminal punishments as an unjust abuse of power. The malefactor appears to them to be sufficiently punished, when, in a public assembly, he is loaded with reproaches. The missionaries confess, that the conversion of the Greenlanders advanced slowly, and exerted but little influence over their moral ideas. For some years back, however, the preaching of natives educated as missionaries, has been productive of a happy change. The Moravians have also succeeded in a remarkable manner in engaging the affections, and reforming the conduct of this simple people, who are gifted with considerable quickness of perception. Commerce, by introducing coin and even paper money, has given them new notions with regard to property. In the southern part of the country, they have been taught to make barrels, and construct boats.^d The name of their ancient divinity, *Torngarsuk*, to whom they never offered any worship, is already forgotten, as well as the malevolent goddess, without a name, who was supposed to inhabit a palace at the bottom of the sea, guarded by terrific sea-dogs.^e Even a kind of philosophy has introduced itself among them, and various new opinions exist concerning a future state and the transmigration of souls. The free-thinkers of Greenland will not admit the prevalent belief that there is a paradise, where the soul, in a state of happy indolence, is nourished with the heads of sea-dogs.^f The priests and sorcerers, called *Angekok*, and the malevolent enchanters, denominated *Ilseets*, are daily losing their influence. Perhaps the period may not be far distant, when the sublime devotion of the virtuous Egede will meet with its reward, and a Christian and civilized people will at length inhabit this memorable colony, the most northern that Europeans have ever established. A mild and pure glory will then recompense Denmark for the pecuniary sacrifices which this struggle with the elements has cost her, a struggle into which she has been drawn by a pious zeal, and the influence of historical recollections.

The same recollections accompany us to that wonderful island, which, although it was known seven centuries before the time of Columbus, is, nevertheless, a natural appendage of the New Continent. Our readers will readily understand that we allude to Iceland, that land of prodigies, where the subterraneous fires of the abyss burst through a frozen soil; where boiling springs shoot up their fountains, amidst eternal snows; and where the powerful genius of liberty, and the no less powerful genius of poetry, have given brilliant proofs of the energies of the human mind at the farthest confines of animated nature.

We were long indebted for our acquaintance with the geographical situation of Iceland, to the observations of obscure authors, made in the middle of the seventeenth century, or, perhaps, even merely copied by Torfæus from some imitation of the *Carta di Navegar* of the brothers Zeni, which was drawn up in the fourteenth century. To these were adapted the otherwise accurate results of the survey of the military engineers completed in 1734. Such were the discordant elements of the map of Iceland, which was

^a Still, it must be remarked, that this, and every other nautical artifice, is quite unknown to the aboriginal Esquimaux of Prince Regent's Bay. Ross, I. p. 175.—Tr.

^b Plin. Hist. Nat. lib. II. cap. 67. Pomp. Mela, III. 5. Vossius reads *Bacti* for the name of this nation, and thinks them *Butari*. Other MSS. read *Lydi*, and the *Lygdi* are mentioned by Tacitus and Cluverius as a Suevian tribe; as also the *Boii*. The latter dwelling nearest the Helvetic territory, probably made the present of these foreigners

VOL. II.—NOS. 75 & 76

to Metellus Celer, who was proconsul of *Hither Gaul* only, sometime before A. U. 694, the commencement of Cesar's conquests.—Tr.

^c Wallace's Account of the Islands of Orkney. London, 1700 folio 60.

^d Danish Ministerial Gazette, quoted above.

^e Hans Egede's Natural and Civil History of Greenland, ch. XIX. Crantz, Book III. sect. 5. § 35—39.

^f Compare Franklin, in Journey, &c. Ross, vol. I. *passim*.

published by the Homanns, and became, with some slight corrections, the origin of all the rest.^a But, in 1778, Messrs. Borda, Pingré, and Verdun de la Crenne, after having at first sought in vain for Iceland, floating, as it were, like Delos, on the ocean, determined astronomically several principal positions, some of which were placed three or four degrees too far to the west. The superficial extent of the island, which, according to the old maps, had been estimated at 8000 square leagues, was reduced, in consequence of their measurement, to 4500.

Iceland, that is to say, the country of ice, strictly speaking, is nothing but a chain of immense rocks, the summit of which is covered with perpetual snow, although fire burns within their subterranean caverns. Trap and basalt appear to predominate in the structure of these mountains. The basalt forms immense masses of pillars, similar to those of Giant's Causeway in Ireland. Mount Akrefell contains beds of amygdaloid, trap-tuff, and greenstone, the lower surface of which has evidently been subjected to the action of a very strong fire, but under powerful pressure, probably at the bottom of the primitive ocean.^b Several formations of lava are noticed, one of which has flowed, and often still flows, in the form of blazing torrents, which issue from craters; another kind, of a spongy, and, as it were, a cavernous nature, appears, if we may use the expression, to have boiled up in the very place where it is found.^c This last mentioned lava contains in its numerous cavities the most singular stalactites. There are about twelve volcanoes in Iceland, with the eruptions of which we are acquainted, not reckoning those which may have become extinguished before Iceland was inhabited. The most celebrated of these volcanoes is *Mount Hecula*, situated in the southern part of the island, at the distance of about a league and a quarter from the sea. Its elevation is estimated at 4800 feet above the level of the sea. The volcanoes of *Skaptaafell* made themselves known in 1783, in a terrific manner. The river *Skapt-Aa* was completely filled with pumice stones and lava; a fertile district was instantly changed into a desert covered with scoria: sulphurous exhalations and clouds of ashes spread themselves over almost the whole island; and an epidemic was the consequence. No phenomenon, however, better proves how immense the mass of volcanic matter must be, than the sudden appearance of a new island,

^a The following are the changes which Iceland has undergone in the maps of the eighteenth century.

	N. lat.		Long.		
	deg. min.	deg. min.	deg. min.	deg. min.	
Homanns' Map	63 19	to 67 17	348 22	to 2 12	from Ferro.
Horrebow's do.	63 14	to 67 14	331 0	to 345 11	from Oxford? (346 25 to 1 36 from Ferro.)
General History of Voyages, do.	63 15	to 67 18	36 6	to 22 6	from Paris. (343 54 to 357 54 from Ferro.)
Verdun de la Crenne's do.	63 13	to 66 45	27 2	to 18 14	from Paris. (352 58 to 1 36 from Ferro.)

It is remarkable that Horrebow, if, as we suppose, he has calculated from the *meridian of Oxford*, should have correctly laid down the position of this eastern coast. It is probable, in fact, that he must have had before him either the map or observations of some English navigator, whose name has remained unknown.

The map of the brothers Zeni gives all the latitudes too high; but as it allows Iceland only nine degrees in longitude, it approaches within *half a degree*, nearly, of our modern maps. Even the figure of the island is good, with the exception of the N. W. peninsula, with which the Zeni were unacquainted.

This uncertainty with respect to the geographical position of Iceland, naturally extended to the adjacent coast of Greenland; and so late as June, 1822, a correction of 5° to 10° of its western longitude,

which, shortly before the eruption of 1783, rose up to the south west of *Reikianess*, in 63° 20' latitude, and 5° 40' west longitude. This island threw out flames and pumice stones; yet, in 1785, when a search for it was made, it had entirely disappeared. It is probable, therefore, that this island was nothing more than a crust of lava and pumice stones, raised to the surface of the sea by a submarine eruption.^d

The hot springs are another curiosity in this island, but they have not all the same degree of heat. Those, whose tepid waters issue as gently as in ordinary springs, are called *Laugar*, or baths; others, that throw up boiling water with great noise, are denominated *Caldrons*, in Icelandic, *Hverer*. The most remarkable of these springs is that called the *Geysir*, which is found near Skalholt, in the middle of a plain where there are about forty other springs of a smaller size. Its mouth is nineteen feet in diameter, and the basin into which it spreads itself thirty-nine. Archbishop Von Troil saw this spring rise to the height of eighty-eight feet; and Dr. Lind to that of ninety-two. This column of water, surrounded by a dense smoke, falls back upon itself, or forms a magnificent girandole. A new spring has lately appeared which rivals the Geysir. It is called the *Strok*. The aperture from which it springs is of a smaller diameter, but it shoots up with more force than the Geysir presents a better defined surface, and reaches a much greater elevation; and is then dispersed in the air like our artificial fountains.^e Two other springs rise and fall alternately. The whole of this infernal valley is filled with springs, and surrounded with lava and pumice stones. These boiling waters, and principally those of the Geysir, deposite round their edges a crust of siliceous tuff.^f In these hot springs, which formerly served to baptize their pagan ancestors, the Icelanders boil their vegetables, meat, eggs, and other articles of food; but it is necessary to cover with care the pot suspended in these smoking waters, in order to prevent the volcanic odour from given a taste to the victuals. They likewise wash their linen in them, and by means of the heat, give a curve to several implements of wood. The more temperate springs are employed as baths. The cows that drink of these waters give an extraordinary quantity of milk.

Besides these magnificent fountains, Iceland likewise contains mineral springs, which the inhabitants call the *beer*

was made by the indefatigable Captain W. Scoresby. In his ship *Baffin*, he explored this almost forgotten shore, from lat. 69° to 75° north; and besides that sound named *Scoresby*, which is supposed to communicate with Jacob's Bight, within Davis's Straits, he found the line of coast, like that on the western side, intersected by frequent inlets, of which the chief are *Davie's Sound*, *Mountmorris' Inlet*, *Mackenzie's Inlet*, *Scott's Inlet*. Three islands, *Liverpool Coast*, *Canning*, and *Bontekoe*, are situated at a short distance from the land, itself now removed 5°, 10°, and 15°, farther to the westward—See *Scoresby's Voyage, Chart*.

^b Mackenzie's *Travels in Iceland*, Edinburgh Review, vol. XIX. p. 432—434. [Mackenzie states that this mountain is composed of alternating beds of amygdaloid and tufa, and that the above appearance on the lower surface commences only at the height of 800 feet, above which all the beds, except those of tufa, present the same appearance. The greenstone occurs in a vein, about 4 feet thick, cutting these beds, and having a vitreous coating on its sides.—P.]

^c "This is supposed to be formed of rocks which have been subjected to subterranean heat, but not removed from their original place."—*Mackenzie*.—P.

^d M. Lævenærn, Letter on the New Island, Copenhagen, 1787.

^e Olsen, Letter on Iceland, in the *New Memoirs of the Acad. of Scien. of Copenhagen*, vol. IV. with figures. This is the New Geysir of Sir J. Stanley, Letter on Iceland, 1789.

^f Bergmann, in the Letters on Iceland, by Von Troil.

springs, a denomination which appears to prove that they have not always neglected the use of them as they do at present

One of the most singular productions of Iceland is that blackish, heavy, and inflammable substance, called, in Icelandic, *surturbrand*,^a which is a fossil wood, slightly carbonized, and burns with flame. Another kind of mineralized wood, heavier than sea-coal, burns without flame, and contains chalcidony in its transverse fissures.^b

The central mountains of Iceland, probably of a primitive nature, contain iron and copper, which are not worked, for want of fuel; likewise, marble, lime, plaster, porcelain clay, and several kinds of bole, besides onyx, agate, jasper, and other stones. Sulphur is also found, both in a pure and impure state. The mines of Krisevig and Husavig are the most considerable. A manufactory for refining sulphur has been established in the latter place. The sulphur hills present a more frightful, and a more instructive phenomenon, than the Geyser. Under your very feet you see the clay continually bubbling up, and hear the din of waters boiling and hissing in the interior of the mountain, while a hot vapour hovers above the ground, from which columns of muddy water frequently shoot up. The sulphur, which forms the crust of these beds of clay, is generally very hot, and is met with under the most beautiful crystalline forms.

Iceland produces no salt; but the water of the surrounding sea is fully as saline as that of the Mediterranean. The salt which they obtain from it gives a blueish tint to fish.

The atmosphere of Iceland also displays its prodigies. Through an air, which is filled with little icy particles, the sun and moon appear double, or assume extraordinary forms; the aurora borealis reflects a thousand different colours, and every where the magical illusion of the *mirage* creates phantom seas and imaginary shores. The ordinary climate would be sufficiently temperate to admit of the cultivation of grain, which was formerly sufficient for the wants of a much more considerable population. The government takes great pains to revive it. But when the floating ice fixes itself between the northern promontories of this island, all farther hope of cultivation for one or two years entirely ceases, a frightful degree of cold diffuses itself through the whole island, the winds bring with them complete columns of icy particles, vegetation is entirely destroyed, and famine and despair appear seated upon those mountains, which in vain are heated by all the fires of their subterranean abysses.

Within the space of one century the inhabitants reckoned forty-three bad seasons, among which there were fourteen years of famine. In 1784 and 1785, when an intense severity of winter succeeded volcanic eruptions, 9000 individuals perished, or one-fifth of the entire population, with 190,488 sheep, 28,000 horses, and 11,491 horned cattle.^c

The *Elymus arenarius*, in Icelandic, *melur*, is a species of wild wheat, which affords good flour. The *Lichen Islandicus*, and several other species of lichens, are used as food, as well as a great number of antiscorbutic roots, and

even several kinds of marine plants, and, amongst others, the *Alga saccharifera*, and the *Fucus foliaceus*. Iceland produces, like Norway, an immense quantity of wild berries of an excellent flavour. Gardening is now practised over the whole country. Cauliflowers, however, do not succeed. The cultivation of the potato has not made sufficient progress for the advantage of the island. In former times, the southern valleys were covered with extensive forests, but they have been devastated by an improvident economy. At present, nothing more is seen than a few woods of birch trees, and a great deal of brushwood. But the wood which is denied to the Icelanders by the land is brought to them by the ocean. The immense quantity of thick trunks of pines, firs, and other trees, which are thrown upon the northern coasts of Iceland, especially upon North Cape, and Cape Langaness, is one of the most astonishing phenomena in nature. This wood comes floating down upon these two points of land in such abundance, that the inhabitants neglect the greater part of it. The pieces which are carried by the waves along these two promontories, towards the other coasts, supply a sufficient quantity for constructing their boats.

The horses are of the same species as those of Norway, and are employed, like asses, to carry loads. The oxen and cows are generally without horns, but the sheep, on the contrary, have two, and sometimes three, are very large, and have longer wool than the common Danish sheep. Iceland has contained as many as 400,000 sheep, and nearly 40,000 horned cattle.^d The pastures, if better attended to, would constitute the true riches of the island; but they are left in a state of nature.

Government has brought the rein-deer to Iceland, and it has multiplied there. It is remarkable that this animal was not originally a native of the country, considering that the rein-deer moss grows there in great abundance. The foxes of Iceland furnish beautiful furs. Skins of a grayish colour are sometimes sold at Copenhagen for thirty or forty shillings. This is the only wild quadruped of Iceland. The white bear, which sometimes reaches these shores, floating upon islands of ice, now and then commits ravages before he is destroyed. Among the birds of Iceland, the eider duck, *Anas mollissima*, is celebrated for its down. The falcons of Iceland were formerly in greater request than they are at the present day. The white falcon,^e which is rarely met with, is worth from three to four pounds sterling.^f The king of Denmark sometimes makes presents of them to different courts.

The sea and rivers offer advantages to the Icelanders, of which they are too negligent. The salmon, trout, barbel, and other excellent fish, with which the rivers swarm, are generally permitted to live and die undisturbed. Eels are likewise very abundant; but the inhabitants are afraid of eating them, fancying, that in them they see the offspring of the great sea serpent, which, according to the mythology of Odin, encircles the whole earth, and which the Icelanders pretend to have seen lifting its head above the sea, near their solitary shores. The coasts are surrounded with herrings; but it is only lately that the inhabitants have

^a Surtur, the Black God, the Pluto of the North. Brand, fire-brand.

^b Mackenzie, l. c.

^c Stephansen, (Magistrate of Iceland,) Description of Iceland in the 18th century, Copenhagen, 1807. Olavius, Voyage Economique en Islande, (in Danish.) Olfassen, Voyage en Islande.

^d In 1770, Iceland was estimated to contain 491,934 sheep, and in 1703, 35,860 horned cattle. In 1804, there were 218,818 sheep, and 20,325 horned cattle; population, 46,439.—Stephenson.—P.

^e Falco Islandicus.

^f "90 to 100 francs."

become acquainted with the use of nets. Small whales, and the sea-calf and sea-dog,^a together with the cod,^b are what the natives most commonly fish for.

Iceland is divided into four quarters or provinces, named after the four cardinal points. Those of the south, the east, and the west, formed the diocese of *Skalholt*. The diocese of *Holum* comprised the northern quarter; but, since 1801, the two bishoprics have been united. New sites have been marked out for founding other towns. That of *Reikiavik* contained, a short time ago, about a hundred houses, and constitutes the present capital of the country. *Bessestadr* is the seat of a good academy, with a collection of 1500 volumes, which is no doubt one of the most northern libraries in the world.

The commerce of Iceland, formerly shackled by monopoly, is now free. The inhabitants export fish, train-oil,^c meat, tallow, butter, hides, eider-down, wool, woollen yarn, and coarse woollen stuffs. Their importations consist of wheat, grain, brandy, tobacco, colonial merchandise, fine stuffs, and articles of hardware. The value of this commerce is liable to considerable variation.

In 1784, the exportations amounted to 244,422 rix-dollars, and their importations to 189,492 rix-dollars.^d In 1806, the exportations were estimated at 191,236 rix-dollars, and the importations, at 167,205 rix-dollars.^e

Let us now proceed to consider the interesting people who inhabit this singular country. The Icelanders are, in general, of a moderate stature, and well proportioned; but as their food is neither nourishing nor abundant, they are by no means vigorous. Their marriages are not attended with a numerous offspring. They are by no means industrious; but honest, benevolent, faithful, and obliging, these generous islanders display all the hospitality which their means can afford. Their principal occupations consist in fishing and taking charge of their flocks. Along the coasts, the men continue fishing, both in summer and winter. The women dress the fish, and sew, and spin. The men prepare hides, and exercise the mechanical arts. Some of them work in gold and silver. They also manufacture, like the peasants of Jutland, and several other provinces, a kind of coarse cloth, known by the name of *Wadmal*. They manufacture annually 146,000 pairs of woollen stockings, and 163,000 pairs of gloves.^f These islanders are so attached to their native country, that they are wretched every where else. Naturally grave and religious, they never cross a river, or any other dangerous passage, without uncovering their head, and imploring the Divine protection. When assembled together, their favourite amusement consists in reading their historical relations, or compositions of their ancient bards. The master of the house begins, and the others take his place by turns.^g At other times, modern poetry^h is read aloud.ⁱ Sometimes, one of the men gives his hand to a woman, and they sing couplets alternately, that form a kind of dialogue,^k the rest of the company now and then joining in the *chorus*. The game of chess is very much in vogue amongst them, and, like the ancient Scandinavians, they feel great pride in playing it

^a Names for the common seal.

^b The cod is chiefly cured for exportation, and the haddock for home consumption. Both are taken in abundance.—P.

^c They export considerable quantities of cod and shark oil, but no whale oil.—P.

^d Ordonnance of the King of Denmark, of 13th June, 1787, p. 139.

^e Danish Geographical Dict. of 1807. See Anderson, Dict. Comm. p. 424.

^f Mohr and Olavius Travels in Iceland, (in Danish.)

with skill. The dress of the Icelanders is neither elegant, nor very much ornamented; but, on the other hand, it is decent, clean, and adapted to the climate. The women wear rings of gold, silver, and copper, on their fingers. The poorer among them are dressed in the coarse stuff which we have already noticed; and which is always of a black colour. Those who enjoy greater ease of circumstances, are clothed in more ample stuffs, and wear ornaments of gilt silver. The Icelanders are in general badly lodged. In some places their houses are constructed of the wood which has been thrown up by the sea; and sometimes the walls are made of lava and moss. They cover the roof with sods, placed on joists, and occasionally upon the ribs of whales, which are more durable, and less expensive than wood. Many of their huts are made entirely of sods, and are lighted by a window in the roof. Their principal food consists of dry-fish, and preparations of milk. They are sparing of their animal food, and formerly, bread was scarce. At present, however, 18,000 tons^l of rye are consumed in the island. The wealthy know the use of wine, coffee, and all the spices of our kitchen. A more useful imitation of the Danish manners has led to the establishment of several literary societies here, some of which have published memoirs. The parishes, too, have begun to form little public libraries, from which the heads of families borrow books of morality and history. Every Icelander knows how to write, and to calculate; and the greater part of them are acquainted with biblical history, as well as that of Scandinavia. Among their clergy, many individuals are met with, who are intimately versed in all the beauties of the Greek and Roman literature. The useful study of the physical sciences, however, has not been diffused amongst them.^m Such is this colony of Scandinavians, placed between the ice of the pole and the flames of the abyss.

To the north-east of Iceland, extend coasts still imperfectly known, which belong either to Greenland, or to an icy Archipelago. They have only been accidentally seen by navigators, who, in pursuing the whale, penetrated into these dangerous seas. Concussions lately experienced at sea, and masses of floating pumice-stones, appear to indicate the existence of volcanoes in about 75° N. Would the hot springs be discovered here, which, according to the brothers Zeni, were employed to heat the monastery of St. Thomas?ⁿ The island of *Jan Mayen*, which has been often visited, is nothing more than a mass of black coloured rocks, but without any volcanic traces.

The group of three large islands, and of a considerable number of lesser ones, which have received the name of *Spitzbergen*, terminate, in the present state of our geographical knowledge, this chain of icy lands, which are dependant on Greenland, and, consequently, on North America. The great island of *Spitzbergen*, properly so called, is separated by narrow channels from the *south-east* and the *north-east* islands. The eastern peninsula of the great island, has received the name of *New Friesland*. Towards the north-west point, are the remains of the establishment

^g These meetings are termed *Sagu-Lestor*.

^h "Poésies nouvellement composées," i.e. newly written verses.

ⁱ *Rimu-Lestor*.

^k *Vikevaka*.

^l "Tonnes." In 1806, 6646 barrels of rye and rye meal were imported.—P.

^m Holland, on the Literature and Education of the Icelanders, in Sir George Mackenzie's Travels. Troil, Letters on Iceland, p. 184.

ⁿ Hist. de la Geog. p. 400.

formed by the Dutch whalers, called Smeerenburg.^a The mountains of Spitzbergen, crowned with perpetual snow, and flanked with glaciers, reflect to a considerable distance a light equal to that of the full moon. These mountains are probably composed of red granite; the blocks of which, being in a great measure uncovered, shine like masses of fire, in the midst of the crystals and sapphires formed by the ice. In consequence of their enormous elevation,^b they may be descried at a great distance; and, as they shoot up abruptly from the bosom of the sea, the bays, vessels, whales, every thing, in short, appears in their vicinity, extremely minute. The solemn silence that reigns in this desert land, increases the mysterious horror which the navigator experiences on his approach. Nevertheless, the death of nature is even here only periodical. One uninterrupted day, of five months' duration, supplies the place of summer. The rising and setting of the sun mark the limits of the vivifying season. Yet, it is only towards the middle of this season, or, if the expression be preferred, towards the noon of this protracted day, that the heat, long accumulated, penetrates a little way into the frozen earth. Although pitch on vessels is melted with the rays of the sun, still only a small number of plants expand, such as the cochlearias, ranunculuses, and sedums.^c Martens even gathered a chaplet of poppy flowers along these gloomy shores. The gulfs and bays are filled with fuci and algæ of gigantic dimensions, one species being two hundred feet in length. It is among these marine forests that the seals and whales love to roll their enormous bodies, those vast masses of fat, which the fishermen of Europe pursue even to the very middle of eternal ice. It is there that these animals search for the mollusca and little fish, their accustomed nourishment. It is there, in short, that these beings, to all appearance so heavy and so insensible, yield themselves up to their social dispositions, their sports, and their loves. Assembled together upon a field of ice, the sea-dogs dry their brown-coloured hair; the *morse*, or *hvalross*,^d fastening himself to the rocks, displays his enormous tusks, the brilliant ivory of which is concealed under a layer of sea-slime; while the whale blows through his vast nostrils,^e fountains of water into the air, and resembles a floating bank, upon which various crustacea and mollusca fix their abode. This peaceful animal, however, is often mortally wounded by the *narhval*,^f which has received the name of the *sea-unicorn*, from being generally found deprived of one of its horizontal tusks. The whale is also frequently the victim of a species of dolphin, called the *sword-fish*,^g who tears out pieces of flesh from his body, and particularly endeavours to devour his tongue. Among all the colossal monsters of the icy sea, one formidable, voracious, and sanguinary quadruped, the polar bear, claims the first rank.

^a In English, the castle of fat, or fat castle.

^b Above the clouds.—Phipps' Voyage to the Polar Seas.

^c "Joubarbe," *Sempervivum*.

^d *Morse* is a corruption of the Russian adjective *morshaiu*, maritime. *Hvalross*, is both Icelandic and Danish, from *hval*, a whale, and *ross*, horse; whale-horse. The word *hval*, seems to be derived from *hval*, a little hill, a rising ground, or, as if one were to say, fish-mountain. (Comp. *Niala Sagu*, *glossarium* in voce *hval*.)

^e "Events," blow-holes, spout-holes; these are not organs of smelling, but merely passages for respiration, and for ejecting the water received with their food.—P.

^f *Narhval*, from *nar*, Icelandic, dead body, and *hval*; whale-killer.

^g *Delphinus gladiator*, "épée de la mer;" sea-sword.—P.

^h Martens' Voyage to Spitzbergen and Greenland, Hamburg, 1675, in 4to. and the translations in the Voyages au Nord. Bacstrom, Voyage to Spitzbergen, in the Philosophical Magazine, 1801.

At one time borne along upon an islet of ice, and at another, swimming in the midst of the waves, he pursues every thing that is animated with life, devours every animal that he encounters, and then, roaring with delight, seats himself enthroned on the victorious trophy of mutilated carcasses and bones. Another quadruped, the timid and amiable rein-deer, browses the moss with which all the rocks are covered. Troops of foxes, and countless swarms of sea birds, likewise repair hither for a little while, to people these solitary islands; but, as soon as the polar day is over, these animals retire across unknown countries, either to America or to Asia.^b

The marine animals of Spitzbergen present to the cupidity of Europeans, an attraction which makes them forget the dangers of these inhospitable seas. The whale fishery, mentioned in the ninth century, has often given employment to as many as four hundred large vessels, of all nations. The Dutch, within the space of forty-six years, caught 32,900 whales, the whale-bone and oil of which were worth fourteen millions sterling.^{i,k} In the present day, however, these animals appear to frequent the seas of Spitzbergen in fewer numbers, and are no longer met with of the same dimensions as at the commencement of the fishery. The *morse* is more numerous, and easier to attack. Its skin, made use of for suspending carriages, and its teeth, more compact than those of the elephant, are objects that occasionally attract to Spitzbergen temporary colonies of Russians. The ancient Britons, even before the Roman invasion, made their sword-pumells of this bone.^l The ancient Scandinavian colony of Greenland, paid in '*dentes de roardo*,' which appear to have been the tusks of the *morse*, the tribute which, under the name of *Saint Peter's pence*, flowed from the farthest extremities of the earth, to support the magnificence of the Roman churches, and the pomp of the Papal court.^m The horn of the *narhval* has long been the object of superstitious veneration; pretended universal remedies were obtained from it; and it was hung up in the museums with chains of gold. The Margraves of Bareuth ordered several of them to be preserved among the treasures of their family. They had even accepted of one of them as payment of a sum amounting to more than sixty thousand rix-dollars. The two branches of this horn divided between them one of these horns, with as many formalities as they would have employed for the division of a whole fief.ⁿ In the present day, however, physicians have abandoned this panacea, and the *veritable unicorn*,^o has lost its imaginary value. Another substance, the original product of these regions, has likewise been the subject of some fables. We allude to the cerebral matter^p of the *cachalot*, very improperly denominated *spermaceti*, but more appropriately, *whale's*

ⁱ Anderson's History of Commerce, vol. VII. p. 233. (Germ. trans.)

^k "380 millions francs."

^l Solin Polyhistor, c. 22.

^m Schlegel, Mémoires pour l'Histoire Danoise, t. I. part. i. p. 177. Beckman, Apparatus for the knowledge of Merchandise, v. 1. p. 339—341. (in German.)

ⁿ Spiess, Archivische nebenarbeiten, No. I. p. 69.

^o Genuine unicorn.

^p The spermaceti is a peculiar kind of fat, found in almost every part of the body of the *physeter*, mixed with the common fat, but in greatest quantity, and most distinct, in certain cells within the substance of the cranium, particularly in the upper part; hence it was erroneously considered by the older naturalists as the brain or cerebral matter of the animal.—P.

white.^a In the north, candles of a brilliant white are made of it.^b All these enormous animals, however, are far less useful to man than the herring, of which the icy sea appears to be either the native abode or the asylum. There, in the midst of inaccessible waters, he sets at defiance all his enemies. Unknown causes, however, drive him from this secure retreat, to the northern coasts of Europe and America, which he surrounds with his countless shoals.

The extreme abundance of floating wood, which is brought by the sea to the shores of Labrador and Greenland, and especially to those of Iceland and Spitzbergen, and the arctic lands situated between these two islands, forms another, and the last object of curiosity that deserves to arrest our attention among these polar regions. We are assured that the masses of floating wood thrown by the sea upon the island of Jan Mayen, often equal the whole of this island in extent.^c There are some years, when the Icelanders collect sufficient to serve them for fuel. The bays of Spitzbergen are filled with it, and it accumulates upon those parts of the coast of Siberia that are exposed to the east. It consists of trunks of larch trees, pines, Siberian cedars, firs, and Fernambuco and Campeachy woods.^d These trunks appear to have been swept away by the great rivers of Asia and America. Some of them are brought from the Gulf of Mexico, by the famous Gulf Stream, while others are hurried forward by the current, which, to the north of Siberia, constantly sets from east to west. Some of these large trees, that have been deprived of their bark by friction, are in such a state of preservation as even to form excellent building timber.^f But if a part of this floating wood proceed from forests that are still actually in existence, another part appears to us to have a more remote origin, and to be connected with the great revolutions of the globe. We have already seen, in our *Physical Geography*,^g that extensive deposits of coal, of bituminous wood, and of overturned trees, are extended indiscriminately under the surface of continents and seas. This vegetable wreck must belong to several catastrophes, to re-

peated devastations of the solid land. The whole extent of the globe has experienced similar revolutions, and even the Polar Regions present traces of them. In Iceland, besides the fossil bituminous wood, another kind is also found in the earth, which has only undergone a change of colour, odour, and solidity, sometimes a flattening, but with no appearance of mineralization. This wood is met with in argillaceous and sandy ground, at the height of some fathoms above the present level of the ocean, while the deposits of turf and bituminous wood, most generally commence at twenty-five fathoms above this level, and rise even to a hundred fathoms.^h In the same manner, we find, in Siberia, great masses of wood deposited at elevations which the present sea could never have reached.ⁱ Some philosophers have imagined, that in these facts, they perceive a new proof of the diminution of the sea, these deposits proceeding, according to them, from floating wood of an epoch anterior to this diminution. Without wishing altogether to reject this opinion, we ourselves rather consider them as the remains of forests, which were overturned in the very places where they originally grew. If we admit that the bottom of the sea in many places presents to the action of the waves similar deposits of buried forests, that once belonged to continents which have been overwhelmed during the great revolutions of the globe, we may conceive that a greater or lesser quantity of wood must be detached from them, according as the action of the waves is stronger or weaker at any particular point. Now, this action, always very superficial, takes more effect in the shallowest seas, such as are all those of the north. It appears to us, therefore, that a great part of the polar floating wood ought to be considered as the vegetable wreck of great continents, which, crumbling into the basin of the sea, have yet allowed the waters, on retiring, to leave our present land uncovered.

This conjecture may, perhaps, merit the consideration of those who shall, one day or other, direct their scientific attention to the mysteries of that Polar world, a sketch of which we have now completed.

^a "Blanc de baleine"
^b It is well known that this manufacture is not peculiar to the north of Europe, but is carried on extensively in Great Britain and the United States—P.

^c Crantz, *History of Greenland*, t. I. p. 50—54.

^d Brazil wood and logwood.

^e Olafsen, *Voyage to Iceland*, v. I. p. 272. (in German.)

^f *Idem.* v. I. parag. 637, 638.

^g See vol. I. p. 78. 78.

^h Olafsen, *Voyage to Iceland*, v. I. p. 80. 192. 220. and 326.

ⁱ Gmelin, *Voyage en Sibirie*, t. III. p. 126.



Engraved on Steel by F. S. Woodcock

A DISTANT VIEW OF THE FALLS OF NIAGARA

PLATE VIII

Engraved on Steel by F. S. Woodcock

BOOK LXXVIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Canada, Nova-Scotia, and Newfoundland.

AFTER having surveyed the frozen zone of the new world, we enter a country of a milder climate, where men, by means of agriculture, have been enabled to form themselves into more numerous societies. Although the soil is less sterile, it has still many disadvantages; and its inhabitants appear to have hitherto made but little progress in civilization. In ascending the River St. Lawrence, we observe the majestic forests of Canada expanding round the greatest lakes that exist in the world. The river itself may be considered as a strait, which affords a passage to these immense bodies of water. To the largest of these lakes, our earliest travellers have given the name of Lake Superior.^{a b} It is more than 500 leagues in circumference; its clear waters, fed by forty rivers, are contained in extensive strata of rocks, and their surges nearly equal those of the Atlantic Ocean. Lake Huron, which has a periphery of 300 leagues, receives the waters of Lake Superior through the Straits of St. Mary, by a series of rapid descents.^c The outline of Lake Michigan is supposed to be about 200 leagues; it communicates with Lake Huron by a broad strait, which serves as an outlet for its waters, and the country around its banks belongs exclusively to the United States. Lake Huron discharges itself into the rapid river of St. Clair, which, by the accession of other streams, is changed into a small lake of the same name.^d A less violent channel, properly called the Detroit,^e unites this basin with Lake Erie, which is more than ninety leagues in length, and about twenty or thirty broad. On account, however, of its shallow waters, and the unequal elevation of its banks, it is subject to storms, which render navigation dangerous. This lake communicates with the River Niagara, and with those celebrated cataracts, of which so much has been written, although no description can convey an adequate idea of their awful sublimity. We may remark, that the western fall is the greatest; the river in this place is more than 600 yards wide, and the perpendicular height of the descent is upwards of 142 feet. The eastern or American cataract, is 350 yards in breadth, and 163 feet high. It is separated from the western by Goat Island, which extends about half a mile upward from the precipice, and has a sand bank, by means

^a Sagard Th  odat, le Grand Voyage du pays des Hurons, p. 259. Paris, 1632.

^b "The most remote of these fresh-water seas, (*mers d'eau douce*), as the earliest travellers called them, (*Sagard Th  odat*), has received the name of Lake Superior."—M. B.

^c Called the Sault of St. Mary, (*Sault de Ste. Marie*.)

^d "Which expands into a small lake of the same name."—M. B.

^e "Le Detroit," the Strait; in English, Detroit River.

^f Goat Island presents toward the north a perpendicular front of bare solid rock, nearly on a line with, and of the whole height of the cataract. It is connected with the New-York shore by a bridge.—P.

of which, in seasons of low water, the island may be approached from the eastern shore.^f It is now accessible by a bridge thrown over a little above the American fall. Goat Island contains about eight acres^g of good land.^h These great cataracts are continually obscured with vapour, which may be distinguished at a very considerable distance; and their foaming billows appear to float in the heavens. As the density of the mist varies, the adjacent forests and rocks are occasionally perceived, and they add to the splendour of the scene. The effect produced by the cold of winter on these sheets of water, thus rapidly agitated, is at once singular and magnificent. Icicles of great thickness and length are formed along the banks from the springs which flow over them. The springs impregnated with sulphur, are congealed into transparent blue columns. Cones are formed by the spray, particularly on the American side, which have large fissures disclosing the interior, composed of clusters of icicles, similar to the pipes of an organ. Some parts of the falls are consolidated into fluted columns, and the streams above are seen partially frozen.ⁱ

The River Niagara descends by this splendid porch into Lake Ontario, whose tranquil waters are subject to phenomena resembling those of the tides. This lake is nearly 170 miles long, and sixty broad at its widest part.^k It empties itself, through the romantic Lake of the Thousand Islands, into the St. Lawrence. The scenery along the banks of that great river, in the vicinity of Montreal, is wild and picturesque. The traveller observes numerous villages, while he doubles the little promontories that are covered with woods; the houses seem to be placed on the water, and the tin-covered steeples reflect through the trees the rays of the sun. Views of this description are varied and repeated almost at every league.^l After having passed Quebec, the St. Lawrence becomes so much enlarged, and its banks are so far distant from each other, that it resembles a gulf rather than a river.

The Ottawa is the only other considerable river of Canada; it unites its blue^m and transparent waters with those of the St. Lawrence. It forms, among other picturesque cascades, that of the Chaudiere.ⁿ The Saguenay, which flows from the north, is the outlet of Lake St. John. The

^g Eighty acres.—*Gourlay*.—P.

^h *Gourlay's Travels in Upper Canada*.

ⁱ *Heriot's Travels in Canada*, chap. 7. and 8.

^k *Duncan's Travels*, Letter XV.

^l *Weld, Voyage dans le Canada*, t. II. p. 210, &c. &c.

^m "Verd  tre," greenish.

ⁿ The fall on the Ottawa, called the *Chaudiere* (cauldron) and the falls of the Chaudiere, on the river of the same name, a few miles above Quebec, should not be confounded. The river Chaudiere rises in the height of land which separates the waters of the Atlantic from those of the St. Lawrence, into which it flows six miles above Quebec. —P.

River Sorell runs almost in a straight line northwards; it is the outlet of Lake Champlain; by being made navigable, it would afford a most convenient means of commercial intercourse with the interior of New-York, and form a direct chain of communication with the great western canals. Among the lesser rivers, that of Montmorenci is celebrated on account of its cataract. This stream forces twice a passage for itself through precipitous rocks. The rapidity of its current is augmented, as its channel is gradually contracted within the breadth of a hundred feet, when the river falls almost perpendicularly in white clouds of rolling foam, from a rock 246^a feet high—the spray resembling in its descent flakes of snow that are whirled into the profound abyss. Clouds of vapour arising, and assuming the prismatic colours, are bounded by naked rocks of gray limestone, which form the contours of a more varied, although perhaps of a less striking landscape, than that at the Niagara.^b

Canada is not divided by any great chain of mountains, but it rises gradually^c towards the interior. The cataracts indicate the changes in the level of its waters; and the dividing line between the waters of Hudson's Bay and the River St. Lawrence, is marked only by a series of isolated hills and rocks. The extremes of cold and heat are excessive; the range of the thermometer has been calculated from a hundred and two degrees of Fahrenheit to thirty-six below zero in the same scale.^d Frost begins in October, but the heat of the sun still keeps the weather tolerably warm during the day. In the following month the cold increases, one snow storm succeeds another, until the whole face of the country is covered, and the eye looks in vain for a single spot of verdure. These storms are accompanied with violent hurricanes, which proceed commonly from the frozen regions of Hudson's Bay and Labrador. Europeans cannot remain long in the open air at this season,^e without experiencing the painful effects of an intense winter. At Quebec the sleet and snow frequently freeze as they beat against the faces of the people that are walking along the streets. Large masses of snow, drifted in several places above the height of a man, hinder the inhabitants of that city from communicating with each other. This weather continues with little interruption until the middle of December, when the boisterous storms are followed by a more serene sky and by a colder atmosphere. All the rivers become suddenly frozen; even the St. Lawrence is impeded in its course, and its banks are surcharged with islands of ice. The settlers on the southern bank bring over their provisions to supply the market at Quebec. As the river is rarely completely frozen, they use their canoes as sledges along the large heaps of floating ice. These immense masses are hurried down the stream with prodigious velocity, about the end of April, and, in some late seasons, not before the beginning of May. The breaking of the ice is accompanied with a loud noise like the report of a cannon. The lake ice comes down in great quantities for several days, and carries along with it the roots and branches that are torn from the islands and shores in the course of its descent.^f Spring

and Summer are confounded with each other, and the sudden excess of heat renders the progress of vegetation almost perceptible. September is the most agreeable month in the whole year.^g

Canada is nearly covered with forests, and the cultivation of the ground does not extend far beyond the banks of the St. Lawrence. The extensive chain of farms along the sides of that river has the appearance of one immense town. Corn fields, pasture, and meadow lands, embellished at intervals with clusters of trees, snow-white cottages, and neatly adorned churches, present themselves amidst the rich and verdant foliage that covers its steep banks. The view is bounded by lofty mountains, and lengthened out to the verge of the visible horizon by interminable forests.^h The produce of the land consists of tobacco, which is chiefly cultivated for the consumption of the colonists, and of different kinds of pulse and grain, which form an article of exportation. The culture of wheat has made very considerable progress of late years; the soil improves gradually as we ascend the St. Lawrence. This progressive improvement continues through Upper Canada, which as much surpasses the lower province in fertility, as Montreal is superior to Kamarouska. On the north and south banks, in the neighbourhood of Quebec, the soil on the heights covers but thinly an immense bed of black lime slate,ⁱ which, as it becomes exposed to the air, shivers into thin pieces, or moulders into dust. The meadows of Canada are reckoned better than those in the more southern parts of America. But the Canadians are wretched husbandmen; they seldom manure their lands, and never plough them sufficiently deep. Hence the ground is soon exhausted, and the fields are covered with noxious weeds. The straw of their wheat is seldom more than eighteen or twenty inches long; and the ear is about a third part less than that produced in England. This plant is sown early in May, and it is commonly ripe about the end of August. The French Canadians give themselves rarely any trouble about gardens or orchards, while their neighbours in the United States have a large plantation of apple, pear, and peach trees, adjoining to their houses. Strawberries and raspberries are the best fruits in Canada; they appear in rich luxuriance on the plains behind Quebec, and are carried thither in great abundance during the proper season. Apple and pear trees are more abundant, and arrive at greater perfection in the vicinity of Montreal than in any other part of Lower Canada. The wild grapes, and those produced from vineyards, are little larger than currants; when ripe, they have rather an acid and pungent, but not a disagreeable flavour. Melons grow in great profusion; it appears indeed, that this plant is indigenous to Canada. Two kinds of wild cherry trees are plentifully scattered through many of the woods, but their fruit has hitherto been considered of little value. The English walnut tree is not adapted to bear the sudden successions of cold and heat, which mark the Canadian spring.^k A great many of the plants of Lapland and the United States, have been observed among the native productions of the country situated on the north of the St. Lawrence.^l The great heat of the

^a "242."

^b Heriot, p. 76—78.

^c "Par degrés," by a succession of terraces.

^d Heriot, p. 266.

^e "In January."—M. B.

^f Lambert.

^g Annales des Voyages, t. XVIII. p. 114.

^h Lambert's Travels.

ⁱ "Grayish limestone."—M. B.

^k The reader may consult, for more particular details on this subject, *Les Annales des Voyages*, t. XVIII. p. 113—124—126.

^l "There is a singular mixture of the *floras* of Lapland and the U. States, in the country N. of the St. Lawrence."

summer is probably the reason why the annual plants, and such as are protected by the snow during winter, are in general the same with those of more southern latitudes, while the trees and shrubs, on the other hand, having no shelter against the inclemency of the seasons, belong to the species that are found in the arctic regions. The ginseng, and the lily of Canada, which is similar to that of Kamtchatka, appear to indicate some resemblance between the botanical productions of Asia and America. The *Zizania aquatica*, a gramineous plant peculiar to this country, and not unlike rice, grows in the marshy grounds;^a it affords food to the water-fowl, and occasionally to some tribes of wandering Indians.

Although Canada abounds with forests, the trees do not acquire there the same loftiness, and the apparent luxuriance of life, that distinguish them in the United States. The different kinds of ever-greens and of firs are the most numerous and varied. Among others, there are the silver fir, the Weymouth and Canadian pines, the American fir, and the white cedar of Canada, or *Thuja occidentalis*, which must not be confounded with that of the United States, or the *Cupressus disticha*. After these trees, which are considered the most valuable, we may mention the sugar maple and the red maple, the birch, the American lime, the American elm, the iron-wood and the Judas tree. The numerous kinds of oaks have not as yet been well defined; those of Europe, however, present themselves only in the form of stunted shrubs. The naval timber of Canada is chiefly imported from New England. An English ship of war, built lately with Canadian oak, became unfit for service after a few years. A tree called the live oak, which is found only in the warmer parts of the country,^b is said to be well adapted for ship-building. The sassafras, the laurel, and the red mulberry tree, grow in the islands of the River St. Lawrence, but seldom arrive at any degree of perfection. The ash, the yew, and the mountain ash, are common to the northern countries of the old and the new world; but the forests in Canada are adorned with the light festoons of the wild vine, and the odoriferous flowers of the Syrian asclepias.^c There is indeed scarcely a tree in these great woods, that has been considered useless;^d and the making of pot and pearl ashes has contributed to enrich the American settlers. The sugar maple tree, or *Acer saccharinum*, supplies the inhabitants with good fire wood, and with a great quantity of sugar. The maple-sugar is made early in spring, when the sap rises in the trees. As the snow is not completely melted at that season, the Canadians suffer great hardships in drawing off the juice from an immense number of trees, dispersed over many thousand acres. The liquor is boiled, and sometimes mixed with flour, which renders it thick and heavy.

^a "In the mud of the rivers." It grows in the shallow waters along the shores of rivers and lakes. The Indians, in the season of their rice harvest, push their canoes among it, and beat off the seeds into them.—P.

^b In the southern U. States; not in Canada.—P.

^c *Asclepias Syriaca*, silk weed, or milk weed.—P.

^d The forests of Canada furnish large supplies of lumber for exportation, such as oak and pine timber, planks, staves and heading, masts, spars, &c.—P.

^e Lambert, p. 83.

^f "Le cerf, l'elan d'Amerique, le daim." The red deer, or wapite, (*Cervus canadensis*), called elk in America; the moose deer, the elk of Europe, (*C. alces*), and the common American deer, (*C. virginianus*).—P.

^g The ferret is not a native of N. America.—P.

^h "Bisons."

VOL. II.—NOS. 75 & 76.

It is then poured into jars, and when cold, forms itself into a cake, of the shape of the vessel. This sugar is very hard, and of a dark-brown colour; when used for tea it must be nearly reduced to powder, as it could not otherwise be easily dissolved. By being clarified, it assumes a white colour. The maple sugar is sold for about half the price of that from the West Indies.^e

The animals that inhabit the vast forests, or wander in the uncultivated regions of Canada, are the American elk, the fallow-deer,^f the bear, the fox, the marten, the wild-cat, the ferret,^g the weasel, the hare, the rabbit, and the gray and red squirrel. The southern districts are stored with buffaloes,^h small fallow-deer, roebucks, goats, and wolves.ⁱ Otters and beavers, that are highly prized on account of their skins, are found in great numbers in the lakes and marshes. Few rivers can be compared with the St. Lawrence for the variety, abundance and excellence of its fish. But the rattle-snake, and the American crocodile,^k the noxious reptiles of the southern regions, are sometimes seen along its banks. The earliest travellers observed the turkey^l in this country.^m It has been erroneously supposed to be a native of the coast of Malabar; and it is owing probably to the prevalence of this error, that these animals have been called in Germany the fowls of Calicut.ⁿ We may enumerate, among other birds, the wild pigeon, the partridge, grouse, ptarmigan, and quail. The humming bird in Canada is the smallest that is known;^p it is often seen during summer among the flowers of the gardens near Quebec. It gathers food from the blossoms, and is continually on the wing. The body of this little animal, when divested of its plumage, is not larger than a bee.

Different mines of iron ore have been discovered in Canada, but there are few foundries as yet established. Copper and lead have not been found in any considerable quantities. It has been supposed that there are mines of lead, mixed with a very small portion of silver, near St. Paul's Bay, about fifty-four miles below Quebec.

Canada was formerly called New France: fiefs,^q which extended along the banks of the St. Lawrence, were granted by the crown of France to the first settlers. The rest of the country was inhabited by the natives. Gaspe, or Gaschape,^r is situated on the south of this great river, at its mouth; although it is under the government of Canada, we shall describe it more conveniently along with New Brunswick. The line betwixt Upper and Lower Canada commences at a stone boundary on the north bank of Lake St. Francis; it proceeds from thence to the Ottawa River, and to its source in Lake Temiscaming; and continues still north until it meets the boundary of Hudson's Bay. Upper Canada has been lately divided into ten districts, and

ⁱ The bison, or buffalo, is no longer found in Canada, unless in the extreme western districts, beyond Lake Superior. The fallow deer, roebuck and goat of Europe are not natives of N. America. A species of wild goat is found in the Rocky Mountains.—P.

^k "Cayman," alligator. This animal is never found in Canada. It is found only in the southern U. States.—P.

^l Coq d'Inde.

^m Sagard Théodat, p. 301.

ⁿ "Poule de Calicut," Kalekutischer hahn.

^o Beckman's History of Inventions, v. III. p. 246. (in German.)

^p The humming-bird of Canada and the United States is not the smallest of the genus. A species in the W. Indies is but about half the size.—P.

^q "Seigneuries or franc-fiefs."

^r "Gaspésie."

nearly 300 townships;^{a b} but these divisions vary with the increase of population.

A commodious harbour, that can afford a safe anchorage for several fleets; a large and beautiful river, whose banks are sheltered by steep cliffs, or interspersed with forests; a lofty rock covered with houses, rising gradually above each other in the form of an amphitheatre; the two promontories of Point Levi and Cape Diamond, the majestic chasm of Montmorenci and its snow-white cataract, embellish and adorn the capital of Lower Canada. The upper part of the city is built on the heights of Cape Diamond, and raised about three hundred and forty-five feet above the lower town,^c which extends along the banks of the river at the base of the hill. In the winter time the fissures of the rock are filled with snow, which, while it freezes, expands beyond its usual limits, and bursts its cavities;^d these are loosened by the warmth of spring, and often precipitated on the unwary passenger. A traveller, before his arrival at Quebec, is apt to form too high an opinion of its public edifices, from observing the splendour that is produced by the tin or sheets of iron which cover them. The finest building in this city is the ancient seminary of the Jesuits, situated in the market place of the upper town. It has been lately converted into excellent barracks, which can accommodate with ease more than 2000 soldiers. The revenue of these priests was formerly very considerable, being upwards of 12,000*l.* at the time it reverted to the British crown. The other buildings most worthy of notice are the old castle of St. Louis, the court-house, and the English cathedral. The advantages of situation, and the improvements that have been made in its fortifications, may enable Quebec to resist the dangers of a protracted siege. It has been said that 10,000 men may defend the city. In the event of an attack, however, the garrison may be increased in a few hours, by the troops that are generally stationed at Three Rivers and at Montreal. A fleet too can easily supply the town with provisions, so long as the inclemency of winter does not interrupt the navigation of the St. Lawrence. The population of Quebec amounts to 22,000 souls. During the winter its inhabitants amuse themselves by taking excursions in their carioles; and the dullness of a long night is enlivened with the pleasures of the dance. The garrison supports a bad company of actors: and the horse races, which have been lately introduced, tend to improve the breed of that useful animal.^e

Montreal, the second town of Lower Canada, is built upon an island of the same name, about thirty-two miles in length, which is encompassed by the united streams of the Ottawa and the St. Lawrence, immediately below their junction. This majestic river is here nearly two miles in width, and although 500 miles distant from the ocean, is capable of supporting on its surface vessels of 6 or 700 tons burden. This town has a fine appearance. The mountain, from which its name is derived, rises on the left of the city; it is not a conical eminence, but a swelling semicircular ridge, with its concave side towards the river. The hill seems placed like a rampart behind Mon-

treau to shield it from the rude blast of winter. A thick forest covers the greatest part of it; some space has been left for a few neatly built houses, whose bright roofs glitter in the sun-beams. This city contains about 15,000 souls;^f its commerce consists chiefly of furs. The principal merchants of the North-west Company reside at Montreal; it is their emporium, and the great mart of the trade that is carried on between Canada and the United States. The enterprising spirit of its directors has tended to diminish the profits of the Hudson's Bay Company. They employ 3000 individuals as factors, travellers, and huntsmen. The clerks are mostly adventurous Scotsmen, who are forced by penury to emigrate from the Hebrides, to certain hardships, and dubious affluence, in the dreary wilds of the North-West. The small town of Three Rivers is situated between Quebec and Montreal. Although its inhabitants are not more than 1500, it passes for the third city of the province. Sorrell was built by the American loyalists in 1787. It contains about a hundred detached houses, and supplies the inhabitants of the town and neighbourhood with English manufactured goods and West India produce. The importance that was formerly attached to Sorrell arose from its ship building, which has of late years entirely ceased.

The towns of Upper Canada are still in their infancy. The traveller, after leaving the St. Lawrence to enter Lake Ontario, crosses the gulf that has been improperly denominated the Lake of the Thousand Islands. Kingston is situated on one of its creeks. It occupies the site of the old fort Frontenac, the ruins of which are still extant, as well as the remains of a breast-work thrown up by the English. The harbour is on the east side of Kingston, and is formed by a bay that stretches towards the front of the town. The west shore of this bay is bold, and well adapted for wharfs, because vessels of any burthen may not only lie in safety, but load and unload with convenience and ease. From its situation, this city is the depot of those articles of commerce which are transported across Lake Ontario in vessels, and along the river in boats. They meet, deposit, and exchange their cargoes at Kingston. York, which is the seat of the provincial government, is finely situated on a bay, extending nearly two miles from the west to the east side of the town, and almost enclosed by a peninsula, which stretches to a corresponding distance from east to west without the basin of the harbour. Burlington Bay is a small lake, separated from that of Ontario by a sandy beach, which extends five miles in a northerly direction, from Saltfleet to Nelson, with a narrow outlet running from the bay across the beach, and having a bridge over it; on the west of the bay, divided from it by a promontory extending from north to south, is a marsh, or marshy lake, named Coot's Paradise, which is famous for its game. The beach, the bay, the promontory, and the marsh, form perhaps as wild scenery as any in America. The town of Niagara was originally called Newark, but the name was changed by law in 1798. It is still generally, but erroneously, described by its first appellation. It is situated on the left bank of the Niagara, and extends along

^a Supplement to Encyclopædia Britannica, article Canada. Gourlay's Canada.

^b In 1792, Upper Canada was divided into 4 districts and 19 counties; and in 1798, into 8 districts and 23 counties.—Gourlay, vol. I. p. 114.—P.

^c Cape Diamond is 345 feet above the level of the water. The precipice, at the Castle of St. Louis, is rather more than 200 feet high.

"The upper town is built on Cape Diamond, which is 250 feet high."—M. B.—P.

^d By this expansion, the rock is separated into loose blocks or fragments.—P.

^e Lambert, Heriot, &c. &c.

^f Population, in 1822, 18,767, of whom 6,877 were English.—Morse.

the shore of the lake to a considerable distance towards the west. Fort George is more than a mile higher up the river. In pursuance of the treaty of 1794, the garrison was removed from the old fort on the opposite bank, and stationed at Fort George; its works have been since strengthened and improved. Fort Erie stands on ground elevated about fifteen feet above water, at the outlet of Lake Erie; it has a good harbour and a pleasant little village.^a London is still an inconsiderable town; the natural advantages on which the expectation of its founder depended, were its central position between the Lakes Ontario, Erie, and Huron; its fortunate situation on the Thames; the fertility of the adjacent country; the mildness and salubrity of the climate; the abundance and purity of its water; its means of military and naval protection; and the facility of its communication with Lake St. Clair, through the outlet of the Thames; with Lake Huron, by the northern branch of that river; and with Lake Ontario, by the military road. Hence the names of the river, the contemplated metropolis, and the adjacent towns, were taken from corresponding ones in the mother country. Fort Malden commands the River Detroit, and is situated on its eastern bank, three miles above its entrance into Lake Erie; the town contains 108 houses and 675 persons.^b

We may remark that the southern extremity of Canada forms a peninsula that is separated from the rest of the province by the Rivers Severn and Trent, which are connected together by a chain of small lakes. The rest of this peninsula is bounded by the Lakes Huron, Erie, Ontario, and by the Rivers St. Clair, Detroit, and Niagara. The soil is a vegetable mould that rests on beds of limestone. Many of the rivers are turbid in this part of America, but there is no great body of stagnant water. The country is fertile in wheat and clover; it abounds also with excellent peaches and other kinds of fruit. The temperature of the banks of Lake Erie is almost as mild as that of Philadelphia.^c This fruitful and happy region, so different from the other parts of Canada, was claimed by the United States previous to the treaty of 1783; that republic is still ambitious of obtaining it; but the English are fully aware of its military and political importance.

Canada was originally neglected by the court of France, yet its population increased more rapidly than might have been supposed, considering its disadvantages. When it was conquered by the English in 1759, the number of its inhabitants amounted to 70,000.^d The revolution which took place in the government and political institutions of the country in consequence of that event, retarded for a few years the progress of population. But the change of allegiance was rendered as easy as possible by the lenient measures of the conquerors. The laws were allowed to remain unaltered, the inhabitants were secured in the undisturbed possession of their lands under the ancient tenures, and in the free exercise of their religious rites. The prosperity of the country, and the great increase of its population, may be judged of from the following authentic table:—

Date of the census.	Number of inhabitants.	Acres of land in cultivation.	Bushels of grain sown annually.	Horses.	Cattle, swine, &c.	Sheep.	Swine.
1765	76,275	764,604	194,724½	13,757	50,329	27,064	28,076
1783	113,012	1,596,817	383,349½	30,096	98,591	84,000	70,406
Increase in 18 years.	36,737	832,214	188,625	16,339	48,262	57,000	41,400

In 1814, according to a regular census, the province of Lower Canada alone contained 335,000 inhabitants.¹ Of this number 235,000 may be considered as descendants of the original French settlers. The remainder is composed of emigrants from various nations, chiefly English, Scotch, Irish, and American. In 1783, the settlers of Upper Canada were estimated at 10,000, but the most of them were included in the numerous frontier posts and garrisons. After this period, the number of settlers, in consequence of a great accession of loyalists, disbanded soldiers, and emigrants from the United States and Great Britain, increased so rapidly, that in the year 1814, the inhabitants of the province amounted, according to the most accurate returns, to 95,000.² Mr. Gourlay estimates the population of Upper Canada in 1820 at 134,259 inhabitants,^h among whom he calculates 3259 Indians.ⁱ

The greater part of the French population is confined to the northern bank of the St. Lawrence, from Montreal to Quebec. That extensive line of farms and cultivated fields may have improved the aspect of the country, but it has not much contributed to the welfare of the first settlers. The Canadian farmers of that district appear to act in a manner diametrically opposite to that of the Anglo-Americans. They quit with reluctance the place of their birth; the members of a family choose rather to divide the last acre of their estate, than to emigrate and cultivate neighbouring lands, the fertility of which is superior to their own.

The first French colonists are said to have come from Normandy. Their wants are easily supplied; they have shown themselves attached to their religion, and submissive to the government that has respected their independence. Their natural sagacity and courage may make us regret that they have been so long deprived of every means of useful instruction. For the chance of a moderate profit, the French Canadians endure frequently painful hardships, and undertake the most fatiguing journeys; they cultivate flax, and their sheep furnish them with the wool of which their garments are made; they tan the hides of their cattle, and use them for mocasins or boots. They knit their own stockings and caps, and plait the straw-hats that are worn by them in the summer season. They make, besides, their bread, butter, cheese, soap, candles, and sugar; all of which are supplied from the produce of their lands. The farmers construct their carts, wheels, ploughs, and canoes.

The countenance of a French Canadian is long and thin, his complexion sun-burnt and swarthy, and nearly as dark as that of an Indian. His eyes are lively, his cheeks lank and meagre, and his chin sharp and prominent. The man-

^a Gourlay's Sketches, v. I. p. 55. 58.
^b Smith's Description of Upper Canada. Gray's Letters from Canada, and Gourlay's Sketches of Upper Canada.
^c Letter on Upper Canada, in *The Columbian*, (New-York) April 12 and 13, 1813.
^d 75,600.—*Ed. Encyc.*

¹ "Statistical Table of Lower Canada, by Lambert:—

Population.	Acres cultivated.	Bushels sown.	Horses.	Plow-oxen.	Sheep.
200,000	3,760,000	920,000	70,000	230,000	280,000.

—M. B.

^f Population, in 1823, 427,465.
^g Heriot, Lambert, Supplement to Encyclopædia, article Canada.
^h Population, in 1824, 151,097.
ⁱ Gourlay's Statistical Account of Upper Canada, vol. I. p. 617.

ners of these inhabitants are easy and polite; they treat their superiors with deference, their inferiors with affability. Their carriage and deportment are graceful and unrestrained, and they appear more like men that have lived in a great town than those who have passed their days in the country. They live on the most affectionate terms with each other; parents and children to the third generation reside frequently in the same house. Although the practice of dividing their lands may be prejudicial to their interests, still their desire of living together is a proof of the harmony that subsists among them. They marry young, and are seldom without a numerous offspring; their passions are by this means confined within proper limits, and the descendants of the first settlers are rarely guilty of those excesses which disgrace too often the inhabitants of large cities.

The winter dress of the *Habitans* may give them the appearance of Russians, but French gaiety still maintains its sway in this cold country. Their social intercourse is of the same simple and homely kind as that of the French before the age of Lewis the XIV. As soon as the long fast in Lent is ended, the days of feasting begin. Whatever their lands supply is then presented for the gratification of their friends and relatives; immense turkey pies, huge joints of pork, beef, and mutton, large tureens of soup, or thick milk, fish, fowl, and a plentiful supply of fruit, decorate the board. The violin is heard immediately after dinner, and minuets and country-dances increase the hilarity of the guests. The women, and even the men, are sometimes vain enough to powder their hair and paint their cheeks; "in this respect," says a shrewd traveller, "they differ only from their betters by using beet-root instead of rouge."^a

The Canadian settlers enjoy many advantages. A peace, that has lasted for more than fifty years, has augmented the wealth and comforts of the higher orders of society; yet the *Habitans* are very ignorant. Public instruction has been so much neglected, that several members of the provincial assembly can neither read nor write. The Quebec Mercury proposed lately, with much gravity, the establishment of a seminary for the instruction of the members of Parliament that were deficient in these two branches of elementary education. A recent traveller, who has perhaps exaggerated the indolent habits of the French Canadians, confesses that they are not much inferior in industry to the Virginians. The English colonists of Upper Canada do not as yet differ very much in their character from the inhabitants of the mother country.

The manners and customs of the two provinces are not more dissimilar than their government and laws. The English law, both civil and criminal, was first introduced into Canada after its conquest in 1759. The penal code of Great Britain was esteemed by the people a very great improvement, in as much as it freed them from the arbitrary enactments of their former rulers. In 1792, by the 31st George III. all the advantages of the English constitution were extended to Canada. Two houses of parliament, a legislative council, and a house of assembly, were appointed in each province. These two houses have the privilege

of proposing laws, which, after receiving the sanction of government, are transmitted to the king of England, who has the right of repealing them any time within two years. The legislative council of Upper Canada consists of not fewer than seven members, and that of the Lower Province of at least fifteen, all of whom are nominated by the British parliament. The house of assembly is composed of sixteen members in Upper,^b and of fifty-two in Lower Canada, who are elected by the freeholders of the towns and districts. In the counties, the land-proprietors that have an estate of the annual value of forty shillings are qualified to vote. In the different towns, the voters must be either possessed of a dwelling-house and a piece of ground, worth at least 5*l.* Sterling a-year, or they must have been settled a twelve-month in the country, and have paid not less than 10*l.* of yearly rent. The assemblies are quadrennial, but the governor can dissolve them within that time. The municipal law of Lower Canada is regulated by the custom of Paris anterior to the year 1666.^c The English laws and forms of procedure have been adopted in Upper Canada. The executive authority consists of a governor, who is generally commander of the forces, of a lieutenant-governor, and of an assembly, composed of seventeen members, which exercises an influence in the country, similar to that of the privy council in England.^d The governor is invested with the prerogative of giving the royal assent or refusal to all the acts that have been approved of by the two houses of legislature.

The only real advantage which Great Britain has obtained from the possession of Canada, is derived from its commerce with that colony. The expenses of the civil list in Lower Canada amount to 45,000*l.*; nearly three-fourths of this sum are defrayed by the province, out of the king's domains, and by duties payable on certain imports. The remainder is supplied by the English government, which supports the Protestant clergy, and the military and Indian establishments. The costs of the civil administration of Upper Canada are reimbursed by direct taxes, by duties on articles imported from the United States, and by a sum which is taken from the revenue of the lower province. In addition to these expenses, the British government lays out annually about 500,000*l.* for the maintenance of the clergy, for the distribution of presents to the Indians, and for the forces and garrisons that are required to defend the country. Although this province is so costly to the English, its possession has been considered as useful and important to the mother country in time of peace. Canada is the great market for several articles of British manufacture that are imported into the United States. The agricultural produce of the country, and the articles which English commerce procures by this channel from the interior of North America, have given rise to an increasing exchange, and to an extensive navigation. In 1808, the exports were valued at 1,156,060*l.* and the imports are said to have exceeded 610,000*l.* Three hundred and thirty-four vessels, capable of containing 70,275 tons, sailed from Quebec in that year.^e The number of sailors who were engaged in the service amounted to 3300 men. In 1810, 661 vessels were employed, the burden of which was calculated at 143,893

^a Lambert, Travels in Lower Canada, vol. I. p. 326. 332, &c.

^b In 1818, the legislative council of Upper Canada consisted of 9 members, and the house of assembly of 25.—Gourlay, v. II. p. 90.—P.

^c "The civil laws of Lower Canada are the customs of Paris, anterior to 1666."—M. B.

^d The British provinces in N. America are presided over by a go-

vernor general, who resides at Quebec; but each of the provinces has its lieutenant governor and executive council, that of Upper Canada consisting of 5 members (1818,) exclusive of the chief justice and lord bishop, who are members *ex-officio*.—P.

^e "The number of vessels was 334," &c. This statement includes the entire commerce of Canada.—P.

tons; these ships were manned with 6000 seamen. The imports that were then brought into Quebec were valued at 972,837*l.*; if we add to them those conveyed by Gaspé, and Lake Champlain, the whole sum will amount to at least 1,050,000*l.* The exports from the port of Quebec in the same year, were computed at 1,294,000*l.* which, with the exports from Labrador, and Gaspé, and by Lake Champlain, may be estimated at 1,500,000*l.*

Canada, considered as a military position, forms the principal link in that chain of British possessions in North America, which extends from Acadia and Newfoundland, to the vicinity of Lake Winnipeg. As long as the English nation retains the advantages which these colonies afford it, England will always be the most formidable enemy, or the most useful ally, of the great American republic, the only rival that has been able to contend with the modern queen of the ocean.

We do not propose to give a minute account of the savage tribes that dwell within the limits of Canada. The country of the Hurons is situated on the north and the east of the lake which bears their name; they have also a considerable town on the banks of the Detroit. Some scattered villages on the River Ouse, are peopled by the remains of the tribes that were called the Six Nations, principally by the Mohawks. The Mississagas, the faithful friends of the Algonquins, still inhabit that part of the peninsula of Canada near the sources of the River Credit. The Iroquois are for the most part settled on the banks of the Ottawa; they are now, however, but the feeble remnant of that once formidable and generous tribe.

Mr. Lambert saw, at the house of one of his friends, Captain John, an old Iroquois chief, who assisted the English in the American war. The veteran related an anecdote respecting the narrow escape which himself and a British officer had made. The latter happened to be dressed in green, like some of the Americans, and as they were skirmishing in the woods, the two parties came suddenly on each other. John and the officer presented their rifles and were about to fire, when the Englishman called upon him by name; he spoke very opportunely, for another moment might have been too late. The old warrior declared, as the big tear trickled down his sun-burnt cheek, that both of them were likely to have perished, for they were excellent shots. This chief had a daughter, who was celebrated for her beauty; being attached to an English gentleman, her love became too powerful for her virtue. After having a child to her lover, he refused to comply with the ceremony of marriage; on this account she armed herself with a brace of pistols, and went in pursuit of her Theseus. It is affirmed, that her desire to avenge her honour was so great, that the false Englishman never ventured afterwards to appear in the country.

The Indian village of Cachenonaga^a is not far from Montreal; it contains 1200 inhabitants, who are descended from the Agniers, a tribe of the Iroquois. Although bitter enemies to the French, they were partly civilized and converted to the Christian faith by the indefatigable zeal of the Jesuits. The women are particularly solemn and devout in their deportment, and are strongly attached to the Holy Virgin. From a sense of religion and humanity,

they educate the illegitimate children that are forsaken by their European parents. The Chevalier Lorimier was employed by government as interpreter. He married successively two Indian women, and adopted so much the manners and customs of the country, that he appeared latterly more like an Iroquois than a Frenchman.

The Tummiskamings^b speak the Algonquin, or Knisteneau dialect, and dwell to the north of the sources of the Ottawa. The country of the Algonquins extends along the River St. Maurice. There are still some hamlets in the vicinity of Quebec, that are inhabited by christianized Hurons, who speak the French language. The Piquagamis in the environs of Lake St. John, the Mistissings on the lake of the same name, and the Papinachis to the north of the River Saguenay, live at peace with their neighbours, and begin to cultivate the ground. These tribes appear to be of the same origin as the Algonquins.

In going down the River St. Lawrence, we observe on our right a country that resembles very much the most mountainous districts of Canada. It abounds with wood, and is watered by many rivers, but its climate is variable and unwholesome, on account of the thick fogs which are exhaled from the sea. The name of this district is Gaspé, the native country of an Indian tribe that was remarkable for its civilization, and its worship of the sun. The Gaspesians were acquainted with the different points of the compass; they observed the positions of some of the stars, and traced geographical maps of their country with sufficient accuracy. A part of this people worshipped the cross, before the missionaries arrived amongst them; they retained a curious tradition, concerning a venerable person who cured them of an epidemic, by making them acquainted with that holy figure.^c The bishop of Greenland, who attempted to christianize the natives of Vinland^d in 1121, may perhaps pretend to the honour of being the apostle of the Gaspesians. The name of Gaspé is now only given to the country that lies between the River St. Lawrence and Chaleurs Bay.

New Brunswick extends, in one direction, to the Gulf of St. Lawrence, and, in the other, to the Bay of Fundy. It is bounded by the United States on the west; and terminates on the south at the isthmus which leads to Nova Scotia. The prosperity, the population, and agriculture of this country, have increased of late years. The River St. John is navigable by vessels of fifty tons burden for about fifty miles; and merchandise can be easily transported in boats more than three times that distance. The effects of the tide are perceptible for a very considerable way up the river.^e It abounds with salmon, sea-wolves, and sturgeons. Its banks are level, rich, and fertilized by annual inundations; they are covered in several places with lofty trees. An easy communication is afforded to the inhabitants of New Brunswick with Quebec, by means of this river. The exports, which consist of timber, fish, and furs, occupied in 1810 not less than 410 vessels, of 87,690 tons. The caribou, the moose-deer, the lynx, the bear, and other Canadian animals, have been observed here, although many of them are unknown in Nova Scotia. There are at present more than 150,000 colonists^f in the territory of New Brunswick; and the indigenous tribe of the Marechites is redu-

^a Cachuewaga.

^b The Temiscamings.

^c Nouvelle Relation de la Gaspésie, par le P. Leclercq. Paris, 1692.

^d See Hist. de la Geog. p. 395. In the original, "who visited Vinland with the intention of christianizing his compatriots who were still

pagans," i.e. the pagan Norwegians who discovered and settled Vinland, about A. D. 1000.—P.

^e "Nearly 70 miles."—M. B.

^f "More than 50,000."—M. B. Population, in 1824, 74,191.

ced to little more than 100 men.^a Fredericktown, which is situated on the River St. John, is the capital of the province. The town of St. Ann's is nearly opposite to it. There are some other towns of less consequence, near the Bay of Fundy.^b

The English have kept possession of Acadia from the year 1713. They divided it into two provinces in 1784, after the peace that confirmed the independence of the United States. The first of these districts is formed by the eastern peninsula, and retains the name of Nova Scotia, which was given to the whole country before its division; the western part of the province was reserved for the German troops in the service of Great Britain, who wished to establish themselves in America, and it received on that account the appellation of New Brunswick.

The climate of Nova Scotia, in common with the adjoining portion of America, is very cold in winter, but its harbours are never frozen. The fogs which rise from the sea, render the atmosphere gloomy and unwholesome. There are generally some days of delightful weather in spring; and the warmth of summer, which brings forward the harvest in a short time, is equal to that of the southern countries of Europe. This country, although generally rugged and mountainous, contains several pleasant and fertile hills, particularly in the vicinity of the Bay of Fundy, and near the banks of the rivers, which are there discharged into the sea. Vast marshes, that extend twenty and twenty-five leagues into the interior of the country, have been there drained and cultivated. The plains and the hills present an agreeable variety of fields, sown with wheat, rye, maize, peas, beans, hemp, and flax. Different kinds of fruit, of which the best are the gooseberry and raspberry, flourish in the woods that overtop the heights, and cover the greater part of the province. The forests are interspersed with oaks, that are well adapted for ship-building; but they abound chiefly in fir, pine, and birch, which furnish pitch, tar, and turpentine, together with wood for the sugar-works in the West Indies. There is a great variety of game and wild fowl in Nova Scotia. The rivers are stored with salmon; and the fishing companies send cod, herring, and mackerel, to Europe. The numerous bays, harbours, and creeks, facilitate greatly every sort of commerce; and many of the rivers are navigable, and advantageously situated, for the carriage of goods.

Frequent emigrations, and the banishment of the ancient French settlers, who, although they called themselves neutral, were suspected of having assisted the natives^c in the war which they waged against their new masters, tended to decrease the population of this country after its occupation by the English. The British government did not pay much attention to the interests of the colony, until after the treaty of Aix-la-Chapelle. More than 4000 disbanded soldiers and sailors were induced to remove to it with their families, by liberal concessions of land, and by the promise of the assistance of the mother country. They were carried thither at the expense of government; fifty acres were assigned to each individual, and their property was exempted from all taxes for the space of ten years:

^a "140 warriors."—M. B.

^b The city of St. John is situated on the River St. John, 3 miles above its entrance into the Bay of Fundy. It is the largest and most commercial town in the province. Population, in 1822, estimated at 8000. St. Andrews, on Passamaquoddy Bay, at the mouth of the St. Croix, is a place of considerable transit commerce with the U. States—P.

^c There seems to be some doubt about the name of the aborigines of Nova-Scotia;—they have been called by different writers, Micmacs

but every man was obliged to pay, after this period, an annual impost of a shilling on his estate. Ten acres were besides given to every member of their families, and they were promised a farther augmentation, in the event of their having more children, or by showing themselves worthy of it, by the proper cultivation of their ground. These colonists did not fulfil the expectations that were formed of them. The excellent harbour of Halifax is now of the utmost importance. Its great utility has proved that the sum of 4000*l.* which was annually expended upon it, for a period of twenty years, has not been unprofitably laid out. The advantages of its position were rendered apparent in the different American wars, when this port, which commands in some respect the Atlantic Ocean, served as a station for the fleets of Great Britain, and as a place of refuge for her merchantmen. The town is well fortified, and contains from 15,000 to 20,000 inhabitants.^d It is the residence of the governor of the province, and of a court of admiralty, whose jurisdiction extends over the whole of the English possessions in North America. The islands of St. John and of Cape Breton, are subject to Nova Scotia. Annapolis, another convenient harbour, formerly called Port Royal, is situated on the Bay of Fundy, nearly opposite to Halifax; but the town itself is as yet little larger than a village. The city of Shelburne is built on Port-Roseway Bay, on the S. E. coast of the peninsula; it contained only fifty inhabitants at the beginning of the first American war, but its population at present may amount to 9000 or 10,000 souls.^e

Cape Breton, or Isle Royal, is separated from Nova Scotia by the Straits of Canso or Fronsac. It was said by the French to be the key of Canada, yet its harbours are frequently blocked with ice. The climate is subject to violent tempests, and the atmosphere is darkened by dense fogs; it frequently happens when these mists are congealed in the winter season, that they leave on the ground a thick covering of hoar-frost.^f The quantity of ice taken from the rigging of one of the ships employed in blockading the island in 1758, was said to be not less than seven tons;^g what is more remarkable, it is affirmed that this prodigious mass froze in the month of May.^h Although the greater part of the soil is unfruitful, there are some oaks of a very great size, and many pines that are used in making the masts of ships; a small quantity of corn, flax, and hemp, is cultivated on the island. The mountains and forests are stored with wild fowl, and particularly with a sort of large partridge, which resembles the pheasant in the beauty of its plumage. This country is at present almost completely abandoned, although there is a considerable quantity of coal at no great depth under its surface.

Louisbourg is built on the south-east coast of the island. Its harbour is one of the finest in America. The French began to fortify this place in 1720; it was taken from them by the English in 1745, and restored by the peace of Aix-la-Chapelle in 1748. It was again reduced by Boscawen and Amherst in 1758, and added finally to Great Britain by the treaty of 1763; since that period its fortifications have been demolished.

(M. B.) Mikemacks (Lahontan, v. II. p. 27.) and Mikmoses, (Description of their manners, London, 1758.)

^d Population, during the late war, estimated at 12,000; in 1823, at 9000.—Description of Nova-Scotia. Halifax, 1823.

^e Population, in 1783, said to have exceeded 10,000: in 1816, only 374. It has since decreased.—*Desc. Nov. Scot.*

^f "Verglas," rain that glazes what it falls upon by freezing.

^g "6 to 8 tons."—M. B.

^h May 5th.—M. B.

The Island of St. John, now called Prince Edward's Island, is in the vicinity of Cape Breton, and surpasses it greatly in fertility and in the beauty of its scenery. The French called this island the store-house of Canada, because it supplied that country with grain, as well as beef and pork. The numerous rivers that water its fields afford the inhabitants plenty of salmon, eels, and trouts, and the adjacent sea abounds with sturgeons and a great variety of shell-fish. It possesses a convenient haven for its fishing vessels, and every kind of wood that is required for building ships. In 1789, the population, which is still increasing, amounted to 5000 persons.

The Island of Anticosti is ninety miles long and twenty broad; it is covered with rocks, and has no convenient harbour.^a

The large island that is called by the English Newfoundland, and by the French *Terre-Neuve*, shuts up, on the north, the entrance into the Gulf of St. Lawrence. The perpetual fogs which cover it, are probably produced by the current that flows from the Antilles,^b and remains for a time between the great bank and the coast, before it escapes into the Atlantic Ocean. As this current retains a great portion of the heat which was imbibed in the tropical regions, it is from fifteen to twenty degrees of Fahrenheit warmer than the surrounding water on the banks of Newfoundland. Whenever, therefore, the temperature of the atmosphere is colder than that of the current, a vapour must necessarily arise from the latter, which obscures those places with a moist and dense air. The island, with the exception of the banks of the rivers, is barren and unfruitful. It contains, however, different kinds of trees, that are principally used in the numerous scaffolds which are erected along the shore for the purpose of curing fish. The glades of Newfoundland afford occasionally good pasturage for cattle. In the interior there is a chain of lofty hills intersected with marshes, which give a wild and picturesque aspect to the country. The forests afford shelter for a great many wolves, deer, foxes, and bears. The rivers and the lakes abound with beavers, otters, salmon, and other amphibious animals and fishes. But all these advantages are of little consequence when compared with the great profit that has been obtained from the fishing of the neighbouring seas. On the east and on the south of the island there are several banks of sand that rise from the bottom of the ocean, the greatest of which extends nearly ten degrees from south to north.^c The stillness, and comparatively mild temperature of the water in their vicinity, attract so many shoals of cod, that the fisheries which are established there, supply that article to the greater part of Europe. These animals quit the banks about the end of July, and during the month of August. The fishing season begins in April and ends in October. The length of the cod seldom exceeds three feet, and the conformation of its organs is such to render it nearly indifferent to the choice of its food. The voracity of its appetite prompts it to swallow indiscriminately every substance which it is capable of gorging; glass, and even iron, have been found in its stomach; by inverting itself, it has the power of discharging these indigestible contents. The fishermen range themselves along the side of the vessel,

each person being provided with lines and hooks. As soon as a fish is caught, they take out its tongue, and deliver it over to a person, in whose hands after having undergone a certain degree of preparation, he drops it through a hatchway between decks, where part of the back bone is cut off, and the cod, in order to be salted, is thrown through a second hatchway into the hold. Whenever a quantity of fish sufficient to fill one of the vessels has been taken and salted, she sails from the banks to the island and unloads her cargo. The ship returns again to her station, and in the course of the season completes four or five different freights. The fish are dried on the island, and larger vessels arrive from England to convey them to the European markets. Much care and attention are required in packing this article; the greatest precaution is used to preserve it from the moisture of the atmosphere. A person denominated a culler, or inspector, attends the loading of each vessel, in order to see that all the fish are completely cured before they are put into the cargo, which might otherwise be soon damaged. The price of dried cod at Newfoundland is commonly fifteen shillings the quintal, and it is sold in Europe for about a pound Sterling. In a vessel, with twelve men, there must be 10,000 fish caught, salted, and brought into market, from the middle of April to July, else the owners will be excluded from all claim to the established bounty. Such a crew, however, takes usually during that season more than double that quantity. The English merchants who are engaged in these fisheries supply the sailors upon credit with whatever they stand in need of, and are repaid at the end of the year with the produce of their industry. Several hundred thousand pounds are thus annually advanced on an object of commerce before it is taken from the bosom of the deep. About 400 ships, amounting to 36,000 tons burthen, and 2000 fishing shallops, of 20,000 tons, are usually employed during the fishing season. Twenty thousand men from Great Britain and Ireland are engaged in this trade, and several thousands of them who remain on the island during the winter, are occupied in repairing or building boats and small vessels, or in erecting scaffolds for drying the cod. The persons that are not seafaring men have been distinguished by the appellation of planters.^d

Among the animals of Newfoundland, there is a particular kind of dog, remarkable for its size, its fine glossy hair, and especially for its excellence in swimming. Some writers have supposed that this breed was originally produced from an English bull dog and a native she wolf.^e It is ascertained, at all events, that these animals did not exist at the time of the first settlers.

This island, which was so long considered the inhospitable residence of fishermen, has within a few years doubled its population and industry. The towns of Placentia and St. John's, since their embellishment and extension, have assumed a European aspect. The population of Newfoundland was estimated in 1789 at 25,000 inhabitants; it contains at present about 75,000 souls. The predictions of Whitbourne and Sir Humphrey Gilbert have been verified, and the activity of the British nation has added another fine colony to the civilized world.^f

We cannot give more properly an account of the Ber-

^a Anticosti is 130 miles long by 30 broad. It is entirely covered by a forest of pines.—*Ed. Encyc.—P.*

^b The Gulf Stream.

^c It is 330 miles long by 75 broad.—*Ed. Encyc.—P.*

^d Heriot's Travels.

^e Whitbourse, Discourse and Discovery of Newfoundland.

^f See Steele's Voyage across the Atlantic. Statistical Tables at the end of this book. Lord Bathurst's Speech in the House of Peers, 15th March, 1816.

mudas Islands than in this place. That group, situated half-way between Nova Scotia and the Antilles, is politically connected with the former, since it serves as a summer station for the ships that winter at Halifax. The Archipelago is about thirty-five miles in length, and twenty-two broad, but there is a long and dangerous ridge of rocks near it. The size of the islands varies considerably; the least is not more than two or three hundred paces, the largest is about twelve miles. From a distance they have the appearance of hills covered with a dark verdure, at the bases of which, the ocean is dashed into white foam. The water in these islands is brackish, with the exception of that which falls from the clouds; it is kept in large cisterns, in order to supply the inhabitants, and not unfrequently some ships of war. The air is considered pure and wholesome. The cedar trees that grow in these islands constitute almost the sole riches of the settlers, who form them into small vessels which are used in coasting between the United States, Acadia, and the Antilles. The fortune of an individual is computed by the number of his trees, each of which is worth about a guinea standing. Agriculture is neglected, on account of the cedar plantations occupying the greater part of the rich lands. The Americans supply the inhabitants with grain and different sorts of provisions.

^a Population, 10,381; 5462 whites, 4919 black slaves.—*Morse*.

^b Official Reports in the *Courier*, 30th Dec. 1815.

^c About 300 houses.—*Morse*

^d *Voyages intéressans*, par M. N**., Paris, 1788.

The population may be estimated at 10,000 souls over an extent of 12,161 acres; in this number there are 4755 whites, and 4794 black slaves.^{a b} The town of St. George, in the island of the same name, contains 250 houses.^c Hamilton is at present an inconsiderable town. The frequent hurricanes to which they are exposed, have obliged the settlers to build low houses.^d English laws are in force, and the legislative power is vested in a general council.^e The Spaniards have regretted the loss of these islands, on account of the convenience of their harbours. They were discovered, according to the common opinion, in 1557, by Juan Bermudez, but it is probable that they were known in 1515 under the double name of Bermuda and la Garça.^f There are now very few cattle in this country; even the breed of black hogs that were left by the Spaniards has greatly decreased. The tempests that prevail in these islands made the first visitors give them the epithet of *Los Diabolos*. Sir George Summers, by his account of them, induced some of his countrymen to emigrate, and several British royalists went thither at the time of the Commonwealth. Waller has celebrated these "fortunate isles," which afforded him an asylum. It is said that the English ladies wore, in honour of the poet, bonnets made from the leaves of the Bermuda palmetto.

^e The Bermudas, like the other British provinces, have a governor, council, and house of assembly.—P.

^f Oviedo, *Hist. Nat.* cap. 85. p. 53. in the *Historiadores de India*, ed. Barcia, t. I.

COMMERCIAL TABLES,

EXTRACTED FROM THE PARLIAMENTARY REPORTS.

AN ACCOUNT

Of the number of Ships and Men, employed in the trade of the British Colonies in North America, from the year 1814 to the year 1820.

In the Year 1814.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada	95	25,818	1336	89	20,291	1208
Cape Breton,	4	717	42	4	717	42
New-Brunswick,	103	22,898	1101	48	11,301	626
Nova Scotia,	64	13,339	692	83	20,976	1131
Newfoundland,	115	16,333	990	345	56,934	3614
Prince Edward Island,	15	3,551	157	2	540	26

In the Year 1815.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	138	31,405	1654	132	27,839	1608
Cape Breton,	6	5,270	78	6	5,270	78
New-Brunswick,	299	72,791	3423	189	50,901	2504
Nova Scotia,	89	21,087	996	120	24,284	1480
Newfoundland,	119	14,181	911	405	60,795	3776
Prince Edward Island,	27	5,985	257	13	3,107	152

In the Year 1816.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	172	43,426	2005	172	40,921	2199
Cape Breton,	3	438	34	3	438	34
New-Brunswick,	348	90,178	4093	167	43,167	2180
Nova Scotia,	95	22,250	1061	87	20,569	1075
Newfoundland,	127	15,175	1032	310	46,503	2878
Prince Edward Island,	27	5,985	257	13	3,107	152

In the Year 1817.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	235	63,643	2944	199	51,659	2591
Cape Breton,	5	959	58	5	959	58
New-Brunswick,	379	95,132	4404	255	67,749	3283
Nova Scotia,	67	15,647	766	105	23,756	1228
Newfoundland,	113	12,495	865	425	46,836	2979
Prince Edward Island,	17	3,603	169	13	2,746	133

In the Year 1818.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	301	80,466	3745	267	70,077	3464
Cape Breton,	1	96	6	6	1,173	66
New-Brunswick,	520	133,001	6239	403	106,713	5206
Nova Scotia,	146	30,604	1519	173	39,841	2065
Newfoundland,	110	11,567	857	417	58,448	3696
Prince Edward Island,	55	10,961	511	43	9,633	487

In the Year 1819.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	482	124,280	5706	440	114,484	5567
Cape Breton,	4	629	36	10	1,470	102
New-Brunswick,	605	161,711	7239	485	123,944	6167
Nova Scotia,	153	34,265	1696	157	36,000	1841
Newfoundland,	128	14,242	945	873	52,427	3294
Prince Edward Island,	74	16,361	773	55	11,822	593

In the Year 1820.

	Inwards.			Outwards.		
	Ships.	Tons.	Men.	Ships.	Tons.	Men.
Canada,	387	98,462	3369	351	94,193	4359
Cape Breton,	4	629	36	6	753	60
New-Brunswick,	502	133,813	6138	437	112,643	5541
Nova Scotia,	89	20,926	1004	74	15,024	710
Newfoundland,	13	2,091	45	28	5,507	320
Prince Edward Island,	59	12,310	616	53	11,282	567

Real Value of British and Irish Produce and Manufactures exported from Great Britain, as ascertained from the Declarations of the Exporters.

Years.	Canada.			Nova Scotia.			New-Brunswick.			Prince Edward Island.			Cape Breton.			Newfoundland.			Total.		
	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.
1814	1,540,412	19	9	1,176,097	11	1	503,230	10	8	4,311	3	11	2,236	0	0	893,105	12	2	4,119,393	17	7
1815	1,695,266	5	6	536,471	11	1	249,631	15	7	14,778	10	0	3,402	1	0	771,541	0	3	3,271,091	3	5
1816	1,252,235	5	7	374,222	1	4	161,433	16	1	13,637	3	9	3,233	5	6	465,303	16	9	2,270,065	9	0
1817	573,474	11	11	216,064	6	9	141,777	8	7	6,391	3	11	2,226	0	0	380,163	15	8	1,320,097	6	10
1818	648,608	18	3	216,236	8	3	227,495	1	0	20,838	15	8	3,426	0	0	502,815	3	3	1,619,420	6	5
1819	810,249	9	0	269,395	14	4	225,012	15	2	28,867	1	10	5,396	15	0	528,108	16	9	1,867,830	12	1

BRITISH AND IRISH PRODUCE AND MANUFACTURES.

Official Value of Exports from Great Britain to

Years.	Canada.			Nova Scotia.			New-Brunswick.			Prince Edward Island.			Cape Breton.			Newfoundland.			Total.		
	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.
1814	1,436,436	2	9	949,594	0	1	446,336	2	10	3,679	17	0	2,212	15	5	573,025	0	1	3,411,283	18	2
1815	1,338,952	13	7	410,193	16	8	177,201	5	2	10,341	3	10	3,014	2	7	507,152	11	2	2,446,855	13	0
1816	931,109	4	9	271,567	1	1	115,039	8	8	9,417	19	3	2,805	14	7	332,366	11	11	1,662,306	0	3
1817	477,624	12	3	164,387	8	0	107,279	5	4	4,506	1	7	1,980	9	5	257,057	2	11	1,012,834	19	6
1818	569,331	15	4	173,644	18	7	167,913	15	7	15,366	14	2	3,535	5	9	331,359	18	6	1,288,149	7	11
1819	735,574	2	6	217,696	2	4	175,236	0	7	22,655	1	0	3,191	0	2	368,780	18	0	1,523,133	4	7
Difference between the Official Value of Exports, &c. in the Years 1819 and 1814.																					
	700,862	0	3	731,897	17	9	271,100	2	3	18,975	4	0	978	4	9	204,244	2	1	1,888,150	18	5
Foreign and Colonial Merchandise.																					
1814	462,073	1	1	100,279	2	5	14,588	3	9	1,380	19	1	376	13	8	90,968	15	6	669,666	15	6
1815	498,757	2	1	47,221	10	3	27,940	3	11	2,608	4	3	291	13	2	59,929	11	3	636,748	4	11
1816	415,450	10	4	43,852	1	9	22,945	15	4	2,850	12	11	365	15	6	36,845	12	6	522,310	8	4
1817	281,553	0	1	32,852	1	1	21,196	9	6	601	12	0	175	6	3	81,584	10	7	367,962	19	6
1818	328,158	4	8	45,463	14	3	40,960	17	3	5,837	5	0	627	6	2	47,924	3	7	468,701	10	11
1819	294,491	4	1	50,775	9	8	43,511	7	8	6,495	8	7	320	11	10	51,530	4	7	447,124	6	5
Difference in the Official Value of the Foreign and Colonial Merchandise for the Years 1814 and 1819.																					
	167,581	17	0	49,503	12	9	28,923	3	11	5,114	9	6	56	1	10	39,438	10	11	222,542	9	1

BOOK LXXIX.

THE DESCRIPTION OF AMERICA CONTINUED.

United States—Nature of the Country—Mountains, Rivers, Animals, Plants, &c.

WE now approach a more genial climate, where the forests put forth a vigorous vegetation, and the fields are covered with abundant harvests. In this region man is every where occupied in building houses, in founding cities, in clearing new lands, and in subjugating nature. We hear, on all sides, the blows of the axe, and the blasts of the forge: we see ancient forests delivered to the flames, and the plough passing over their ashes. We observe smiling cities, temples, and palaces, rise up within a short distance of cabins inhabited by Indian savages. We now tread the soil of federal America, that land of liberty, peopled by numerous colonies whom oppression and intolerance forced to leave the British isles, and the other parts of Europe.

It is but forty years since the revolutionary war closed, and the United States took their station among the independent powers of the civilized world. From the peace of 1763, which rendered England master of all North America as far as the Mississippi, the colonies began to feel their strength. The attempts of the mother country to tax them, without the consent of their own representatives, kindled the flames of insurrection. The spirited resistance made at Bunker's Hill in 1775, showed that the Americans would not be easily conquered, if they found an able leader,—as they did find in the brave and prudent Washington. Soon the wisdom of Franklin was employed in fixing the basis of a free constitution, and the independence of the States was proclaimed on the 4th July, 1776. France and Spain concluded an alliance with the new republic, and the English, after having witnessed the humiliation of their arms by the defeats of Burgoyne and Cornwallis, were constrained to acknowledge the independence of the colonies in November, 1782.^a Since this period, their progress has been unexampled. There were thirteen States in the Union when the war commenced, and there are now twenty-four; and their population, which then amounted to two millions and a half, is now ten millions. In 1803, they acquired by purchase the vast territory of Louisiana,—under which name was then included all the exten-

sive region, north of Mexico, lying between the Mississippi and the Rocky Mountains. They claim also, in virtue of the right of discovery, the country on the west side of these mountains, watered by the River Columbia, and bounded on one side by the Pacific Ocean. And, in 1821, they obtained East and West Florida from Spain by cession.

The territory claimed by the United States extends from the 25th to the 49th parallel of north latitude, and from the 67th to the 124th degree of west longitude^b from London. Its extreme length, from the Pacific Ocean to Passamaquoddy Bay, is 2780 English miles; its greatest breadth, from the shore of Louisiana, to the river La Pluie,^c is 1300 miles; and its area, about 2,300,000 square miles. On the east it is bounded by the Atlantic Ocean. On the north-east, a conventional line divides it from New Brunswick, extending from Passamaquoddy Bay northward to the 48th parallel, embracing the head waters of the River St. John,—of part of which tract, however, the British dispute the right of possession.^d From this extreme northern point, the boundary line passes along the ridge of mountains south-westward to the 45th parallel, and then along this parallel till it strikes the St. Lawrence 120 miles below Lake Ontario. It then follows the river and the chain of Lakes, Ontario, Erie, St. Clair, Huron, and Superior, proceeding from the last by the course of the River La Pluie to the 95th degree of west longitude, from which point it passes along the 49th parallel to the Rocky Mountains. On the west side of the mountains, the Americans have an unquestioned claim to the country from the 42d to the 49th parallel; and a more doubtful claim, which is disputed by Russia, to the country from the 49th to the 60th parallel.^e On the south, the territories of the republic are bounded by the Gulf of Mexico; and on the south-west, the boundary extends in a zigzag line from the mouth of the River Sabine to a point in the Rocky Mountains, in north latitude 42°, and west longitude 108°, from which it passes along the 42d parallel to the Pacific Ocean. The Mississippi divides into two parts, very nearly equal, this vast region, which greatly surpasses in extent the Macedonian, Roman, or Chinese empires.^f The population, however, is yet comparatively small.

^a The provisional articles of peace between the United States and Great Britain were signed, Nov. 30, 1782; the definitive treaty, Sept. 3, 1783.—P.

^b 66° 49' to 125° W. long.—Morse.

^c Rainy River.

^d This territory, in dispute, is now the subject of a negotiation. The claims of the parties have been recently referred to the umpirage of the Netherlands. The U. States claim the literal terms of the treaty: N. from the source of the St. Croix to the highlands dividing the waters which flow into the Atlantic from those which flow into the St. Lawrence, and along those highlands to the source of the Connecticut; thus including all the upper part of the St. John's. The British claim the

country on the upper part of the St. John's, as a part of New Brunswick, and as having been long under the actual jurisdiction of that province. They contend that the line should be drawn along the ridge dividing the waters which flow into the St. John's from those which flow into the Atlantic, in Maine. Difficulties have lately arisen in consequence of an American settlement, within the disputed limits, on the Aroostic, a S. branch of the St. John's.—P.

^e The boundary between the United States and Russia has been recently fixed at 54° 40' N.

^f "China Proper."—M. B. The whole Chinese empire, including Chinese Tartary, Thibet and Corea, is more extensive than the territories of the United States.—P.

The Indian tribes, continually forced back by the advancing tide of white population, are fast disappearing from the eastern section of the United States. Custom has reconciled some of them to live among the civilized inhabitants, and to adopt some of their modes; but more generally they sell their lands when the white settlers approach their residence, and retire farther into the wilderness. Dr. Morse states, as the result of his inquiries, that there are 8337 Indians in New-England, New-York, and Pennsylvania; 120,283 in the country east of the Mississippi altogether; and about 457,000 in the whole territories of the United States.^{a b}

Two great chains of mountains traverse the territory of the United States, in a direction approaching to south and north; the Alleghany Mountains on the east side, and the Rocky Mountains on the west. They divide the country into an eastern, a western, and a middle region, the latter comprising the great basin or valley of the Mississippi.

The Alleghanies are less a chain of mountains than a long plateau, crested with several chains of mountains or hills, separated from each other by wide and elevated valleys. East of the Hudson, the mountains are chiefly granitic, with rounded summits, often covered at their tops with bogs and turf, and distributed in irregular groups without any marked direction. Some peaks of the Green Mountains in Vermont, and the White Mountains in New Hampshire, rise to the height of 5000 or 6000 English feet above the level of the sea.^c After we pass the Hudson, the structure of the mountains appears to change. In Pennsylvania and Virginia, they assume the form of long parallel ridges, varying in height from 2500 to 4000 feet, and occupying a breadth of a hundred miles. In Tennessee, where they terminate,^d they again lose the form of continuous chains, and break into groups of isolated mountains, touching at their base, some of which attain an elevation of 5000 or 6000 feet.^e

The Rocky Mountains are upon a much grander scale than the Alleghanies. Their base is three hundred miles in breadth; and their loftiest summits, which are covered with eternal snow, rise to the height of 12,000 feet. They are placed at the distance of 500 or 600 miles from the Pacific Ocean; but between them and the coast there is another chain of mountains, of considerable elevation, but of which little is yet known.^f

On the west side of the Mississippi, and about midway between the Rocky Mountains and the Alleghanies, lies a broad range of mountains, called the Ozarks, six or seven hundred miles in length, about one hundred broad, and having an elevation varying from 1000 to 2000 feet above the sea. This range of low mountains, which is penetrated by two branches of the Mississippi, the Arkansas, and Red River, was nearly altogether unknown till within these few years, and has not been delineated, so far as we know, in any maps hitherto published in this country.

Mr. Maclure, an American geologist, informs us that a

^a The statement is given in Niles' Register for 15th June, 1822, and is ascribed to Dr. Morse.

^b Dr. Morse, in his Indian Report, estimates the Indians in New-England and New-York at 7431; in the country east of the Mississippi, at 120,316; and in the whole territory of the United States at 471,136. See page 232.—P.

^c Height of Mount Washington, in the White Hills, 6234 feet; that of Mansfield Mount, the highest in Vermont, 4279 feet.—P.

^d The Alleghanies terminate in the N. part of Georgia.—P.

^e Michaux, Voyage dans les Etats de l'ouest, p. 275. Mellish's Geographical Description of United States. Philadelphia, 1822. p. 20.

^f Mellish, p. 21.

zone of primitive rocks extends from the mouth of the St. Lawrence to the confines of Florida, varying in breadth from twenty to a hundred and fifty leagues, following the shores of the Atlantic, but with an alluvial zone interposed between it and the coast, from Cape Cod to the Gulf of Mexico. This primitive zone rises, with declivities more or less steep, towards the crest of the eastern chain of the Alleghanies. It consists of granite, gneiss, mica slate, and clay slate, primitive limestone and trap, serpentine, porphyry, sienite, quartz, flinty slate, primitive gypsum, whet slate, &c. The strata dip generally to the south east, at an angle of more than 45 degrees, forming mountains sometimes with round tops, as the *White Hills*, and sometimes with pyramidal summits, as the *Peaks of Otter*. Metals and minerals abound in this zone. There are found in it the garnet, staurotide, epidote, various magnesian stones, the emerald, graphic granite, adularia, the tourmaline, amphibole, arragonite, martial pyrites in the gneiss, magnetic iron oxide in the amphibolic rocks,⁵ hematite, plumbago, molybdena, white cobalt, gray copper, sulphuret of zinc, and three varieties of titanium.

This primitive zone, continues Mr. Maclure, is not unmixed with other rocks. It is traversed in the direction of its length by a small zone of secondary rocks, from fifteen to twenty-five miles broad, which is first seen in the lower part of the valley of Connecticut River, re-appears on the west side of the Hudson, crosses the Raritan, Delaware, Schuylkill, Susquehannah, and Potomac, and terminates at the Rappahannock in Virginia.^b This secondary formation, enclosed as it were among the primitive rocks, is composed of old red sandstone, limestone, silicious conglomerate, mixed with quartz pebbles,ⁱ together with amphibolic rocks^k and wacke, usually covering the sandstone on the heights. A narrow belt of transition rocks, about fifteen miles broad at its north, and two miles at its south end, extends from the Delaware to the sources of the Roanoke, skirting the eastern side of the secondary formation, as far as the Potomac, where it crosses it, and then skirting its western side. This belt of transition rocks is composed of a fine grained limestone, alternating with strata of gray-wacke, and mixed with dolomite, flint,^l white granular marble, and calc-spar. Between the secondary and transition rocks,^m there is, about twelve miles from Richmond, a bed of coal twenty miles long, and ten broad, reposing in an oblong basin on the granite, mixed with whitish sandstone and slate clay (shale,) and containing impressions of vegetables.ⁿ

Independently of this partial transition formation, Mr. Maclure has traced a zone of transition rocks immediately on the west side of the primitive, with a breadth varying from twenty miles to forty, and dipping to the west at an angle of forty-five degrees.^o This zone, generally speaking, occupies the middle of the chain of the Alleghanies, but traverses it near the south end, and disappears in the plains of Florida. The transition limestone, the gray-

⁵ "Roche amphibolique," greenstone. The magnetic iron of the U. States is usually found imbedded in granite or gneiss, sometimes, as at Franconia, N. H. accompanied with hornblend (*amphibole*).—P.

^b A little southwest of the Rappahannock.—(*Cleveland*).—P.

ⁱ Pudding-stone.

^k Greenstone.

^l Silix.

^m This deposit of coal is at a considerable distance E. of the transition formation, above mentioned, and is entirely surrounded by primitive rocks.—P.

ⁿ Maclure's Memoir on the Geology of the U. States, in the Transactions of the Philosophical Society of Philadelphia, vol. VI. p. 41.

^o In many places less than 45°.—*Cleveland*.—P.

wacke and the silicious slate, are generally found in the valleys, while the quartz aggregates, among which are found millstone rock, and the fossil remains of quadrupeds and marine animals, form the mass of the mountains. This zone presents scarcely any other minerals than iron pyrites, galena, and some beds of anthracite, accompanied by aluminous schistus, and veins of sulphate of barytes.

A secondary formation, commencing beyond this last, extends westward, over a vast space, to the lakes and the Rocky Mountains. The strata are almost horizontal, except where they undulate with the surface. They consist of old red sandstone, stratified limestone and gypsum of two different periods, tertiary sandstone, rock salt, chalk, coal, and stratified trap or basalt of a recent origin. The basis of all these strata appears to be an immense bed of secondary limestone of all shades. The western declivity of the Alleghanies presents also a large bed of coal, accompanied by sandstone and slate clay, which extends from the sources of the Ohio to those of the Tombigbee. This formation contains few minerals. Clay ironstone, and martial pyrites, are found in it.

The alluvial zone, which skirts the coast from Cape Cod to the mouth of the Mississippi, and which extends along the banks of that river, beyond the confluence of the Missouri, consists generally of beds of sand, clay, and travelled soil, mixed with deposits of shells, whose succession and thickness indicate the periods the surface had been covered by the ocean. But the entire zone is properly divided into two subordinate zones—the one very little raised above the level of the sea, and traversed by the tidewater in the rivers—the other commencing at from sixty to a hundred miles from the sea, by a series of sandy eminences, a hundred and fifty or two hundred feet high, behind which we find an undulating surface, and some travelled masses of rock. It appears that this more elevated zone, increasing in width as it proceeds southward, forms the spine of the peninsula of East Florida. The lowest parts of both zones are composed of a fertile soil deposited by the rivers.

The Ozark mountains are similar in structure to the Alleghanies. Primitive rocks, granite, and clay slate, are found on their east side. These are covered by transition rocks, which are followed by coal and other secondary formations. At the few points where the Rocky Mountains have been examined, they are found to consist of primitive rocks, granite, gneiss, quartz rock, &c. with an extensive formation of old red sandstone at their foot on the east side.^a

In our account of Canada, we have described the great lakes of fresh water which extend along the northern frontier of the United States, and were the scene of some bloody contests between the English and the Americans in the last war. Of the smaller lakes, Lake Champlain, 128 miles long, and 12 broad,^b is the only one considerable enough to require notice in this work. There are several extensive swamps or marshes, of which those called the Dismal Swamps, are the largest on the eastern side of the mountains. The name is applied to two marshy tracts, one on the north and the other on the south side of Albermarle Sound, in North Carolina. The former, which covers

150,000 acres, bears a growth of cedar and cypress in the wet parts, and of white and red oak and pine in the dry parts. The other, which is still larger, and also covered with wood, has a lake in the middle of it. Both afford some excellent rice grounds. The Great Swamp, lying on the west side of the Mississippi, 200 miles long, and 20 broad, becomes a lake in the beginning of summer, when it receives a part of the overflowing waters of that river; but the waters gradually dry up, and it then exhibits a parched surface, thickly covered with cypress.

We have already described the St. Lawrence in our account of Canada. The Mississippi is a still more celebrated stream; but it is now known that the Missouri is the principal branch, and has the best claim to the magnificent title of "Father of waters," conferred on the smaller branch by the Indians. Of the Missouri we shall speak afterwards. The Mississippi proper, has its source in Turtle Lake, near the 48th degree of north latitude. At the picturesque Falls of St. Anthony it descends from the plateau, where it has its origin, to a vast plain, which accompanies it to the sea. After a course of 280 leagues its limpid waters are blended with the turbid stream of the Missouri. At the point of confluence each of these rivers is nearly half a league broad. Above the mouth of the Missouri, the most considerable rivers are, the St. Peter's and Des Moines on the west side, the Wisconsin, Rock River, and the Illinois, on the east. At the distance of 160 miles below the mouth of the Missouri, it is joined by the Ohio, after the latter has received the tributary waters of the Wabash, the Cumberland, and the Tennessee rivers. Lower down, the Mississippi has its volume augmented by the Arkansas and Red River, and falls into the Gulf of Mexico, after a course of 2500 miles. The river, in the last part of its course, presents some peculiar phenomena. Besides its principal and permanent mouth, it has several lateral outlets, called Bayous, which carry off part of its waters. In Louisiana, the surface of the stream is more elevated than the adjoining lands. Its immense volume of waters is confined and supported by dykes or levees, composed of soft earth, and rising a few feet above the usual height of the inundations. These banks of the river, which decline gradually into the swampy plains behind, are from a quarter to half a mile in breadth, and form the richest and best soil in the country. The three principal outlets or bayous, called the Atchafalaya, the Lafourche, and the Ibberville, embrace an extensive delta, composed of soft, swampy earth, rising very little above tidewater. The actual embouchure of the river parts into three branches, each of which has a bar at its entrance, the deepest affording only seventeen feet water. Within the bar, the depth of the river, for two or three hundred miles, is from 50 to 150 feet. The average breadth of the Mississippi, below its junction with the Missouri, is about 1000 yards, or two thirds of a mile.^c

The Mississippi and its branches traverse countries thickly wooded, and hence vast numbers of trees, either uprooted by the winds, or falling from the effects of age, are borne down by its waters. United by lianas, and cemented by soft adhesive mud, these spoils of the forest become floating islands, upon which young trees take root. There the *Pistia* and the *Nenuphar* display their yellow

^a James's account of an Expedition from Pittsburgh to the Rocky Mountains in 1819, 1820. vol. iii. p. 238. and engraved sections.

^b Its breadth varies from half a mile to sixteen miles.—P.

^c Mellish, p. 32. Warden's Statistical Account of the United States, 1819, vol. I.

flowers, and the serpents, the birds, and the alligators, come and repose on these flowery and verdant rafts, which are sometimes carried to the sea, and engulfed in its waters. Sometimes a large tree attaches itself to a sandbank firmly, and, stretching out its branches like so many hooks, entangles all the floating objects that approach it. A single tree often suffices to arrest thousands in their course; the mass accumulates from year to year; and thus are gradually created new islands, new capes, and peninsulas, which change the course of the stream, and sometimes force it to seek out new channels.

The tides are not felt in the Mississippi, in consequence of its numerous sinuosities.^a The winds are variable; and though the prevailing wind is from the south, and favours vessels sailing against the stream, still the navigation upwards is slow and difficult, especially during the floods, when the current has a velocity of three or four miles an hour. These floods occur in May, June, and July. The additional waters form an inclined plane, the rise being 50 feet in Tennessee, 25 feet near the mouth of Red River, and 12 feet at New-Orleans. The invention of steam-boats has perhaps been nowhere so beneficial as in the navigation of this river. The voyage upwards from New-Orleans to the Falls of Ohio, which often occupied sailing vessels three months, may now be accomplished in steamboats in fifteen or eighteen days.

We shall mention very briefly the other considerable rivers of the United States. The Bay of Mobile receives the waters of the Alabama, which has two large branches, the Alabama proper, and the Tombigbee. Farther east is the Apalachicola. The only large river in Florida is the St. John's, which rises in a marsh, and flowing northward parallel to the coast, falls into the Atlantic. The Alatomaha, Savannah, Santee, and Peedee, are the most considerable rivers in Georgia and South Carolina. They are all navigable to a considerable distance, but have their mouths, less or more obstructed by sand bars. The entrance into Cape Fear River, the Neuse, and Roanoke, is still more difficult, in consequence of the line of sand banks which cover the whole coast of North Carolina. Hence Albermarle Sound, and Pamlico Sound, are properly mere lagoons, to which ships find access only by one or two inlets,^b too narrow and dangerous to be attempted except in favourable weather. To the north of Cape Henry, extends the magnificent Bay of Chesapeake, 180 miles long,^c which receives James's River, the Potomac, and the Susquehannah. The Delaware falls into a bay of the same name. The Bay of New-York receives the Hudson, a large river, in which the tide ascends 160 miles, and which is the scene of a most extensive and active inland commerce. The most considerable rivers east of the Hudson are the Connecticut, the Merrimack, the Kennebeck, and the Penobscot. The small River St. Croix separates the territories of the United States from New Brunswick.

The climate of the United States is remarkably inconstant and variable. It passes rapidly from the frosts of Norway to the scorching heats of Africa, and from the humidity of Holland to the drought of Castile. A change of 20° or 25° of Fahrenheit, in one day, is not considered

^a Or rather on account of the velocity of the current.—P.

^b Ocracoke is the only inlet which admits vessels of burden.—P.

^c 200 miles long.—Morse.

^d It may be proper to mention, that the name of New-England was applied at an early period (and is still in use) to all the states east of

extraordinary. Even the Indians complain of the sudden variations of temperature. In sweeping over a vast frozen surface, the north-west wind acquires an extreme degree of cold and dryness, and operates very injuriously on the human frame. The south-east, on the other hand, produces on the Atlantic coast effects similar to those of the Sirocco. The south-west has the same influence in the plains to the east of the Alleghanies: when it blows, the heat frequently becomes painful and suffocating. In the mountains, however, where the summer heat is moderate, even in the southern states, the fresh and blooming complexion of young persons, is a proof of the purity and salubrity of the atmosphere. The same ruddy complexion prevails in New-England^d and in the interior of Pennsylvania; but the pale countenances of the inhabitants of all the low country, from New-York to Florida, reminds a stranger of the Creoles in the West India Islands. In this region malignant fevers are prevalent in September and October. The countries situated to the west of the Alleghanies are in general more temperate and healthy. The south-west wind there brings rain, while the same effect is produced on the other side of the mountains by the north-east wind. But the north-east wind, which covers the Atlantic coast with thick fogs, is dry and elastic on the banks of the Ohio. When we compare the climate on the opposite sides of the Atlantic, we find that the extremes of temperature are greater, and particularly that the winter's cold is more severe on the west side than on the east. The mean temperature of the year, according to Humboldt, is 9 degrees (Fahr.) lower at Philadelphia than in the corresponding latitudes on the coast of Europe. The mouth of the Delaware is shut by ice for six weeks, and that of the St. Lawrence for five months in the year. Throughout the United States, the rains are sudden and heavy, and the dews extremely copious. Storms of thunder and lightning are also much more common and formidable than in Europe.^e

A climate so variable, and subject to such extremes of temperature, must favour the introduction of that pestilential disease, the yellow fever, which has renewed its ravages so often during the last thirty years in the ports of the southern and middle states. It is the same distemper with the black vomit of the Spaniards, and the Matlazahault of the Mexicans. It seems to be endemic in the low and marshy countries of tropical America.

From the shores of the Atlantic to the Mississippi, the United States present an immense natural forest, interspersed however with open and naked plains, called *prairies*, which are numerous on the west side of the Alleghanies, but very rare on the east side. In the country on the west side of the Mississippi, wood is comparatively scarce; and in the arid and desert plains, occupying a breadth of three or four hundred miles on the east side of the Rocky Mountains, only a few trees are seen along the banks of the rivers. In the inhabited part of the United States, the lands cleared and cultivated probably do not exceed one-tenth part of the surface. There is a diversity in the American woods, according to the climate, soil, and situation of the different districts; and some naturalists have distinguished the vegetation of the United States into five regions.^f

the Hudson. It embraces the six states of Massachusetts, Rhode Island, Connecticut, New Hampshire, Vermont, and Maine.

^e Volney, Tableau du climat et du sol des Etats Unis.

^f "On peut diviser la végétation de l'Amérique Unie en cinq régions." The vegetation of the United States may be distinguished into five regions.—M. B.

1. *The region of the north-east*, bounded by the course of the Mohawk and the mouth of the Connecticut River, where firs, pines, and the other evergreens of Canada, prevail. 2. *The region of the Alleghanies*, where the red and black oak, the beech, the balsam poplar, and the black and red birch, often overshadow the plants and shrubs of Canada, at least as far as North Carolina. The valleys among these mountains are remarkably fertile in corn. 3. *The upland country*, extending from the foot of the mountains to the lowest falls of the rivers; here the prevailing trees are the red maple, the red and black ash, the walnut, the sycamore, the acacia,^a and the chesnut. To the south, the magnolia, the laurel,^b and the orange, are interspersed through the forest. Tobacco, with the indigo and cotton plants, succeed as far north as the Susquehannah, beyond which, pastures prevail. 4. *The region of maritime pines*, which extends along the Atlantic coast from the sea to the first elevations; the long-leaved pine, the yellow pine, and the red cedar, occupy the dry grounds, and the cypress with acacia leaves,^c the low and moist soils, as far as the Roanoke, or even the Chesapeake; farther to the north we find the white pine, the black and Canadian fir, and the *Thuja occidentalis*. The rice grounds commence where the tidewater becomes fresh, and terminate where it ceases to be felt. 5. *The western region*, which no doubt admits of sub-division, but in which, generally speaking, the forest trees are, the white oak, the black and shellbark walnut, the hickory walnut, the wild cherry, the tulip tree, the white and blue ash, the nettle tree, the sugar maple, the white elm, the linden tree,^d and the American plane tree,^e which all grow to a greater size than on the Atlantic coast.

But the varying altitude of the ground necessarily blends the characters of these different regions. Looking, therefore, at the forests of the United States as a whole, the most universally diffused trees are, the willow-leaved oak^f which grows in the marshes; the chesnut oak,^g which in the southern states rises to a prodigious size, and which is almost as much esteemed for its farinaceous acorns as for its wood; the white, red, and black oak. Two species of walnut also, the white, and the black, valued for the oil of their nuts, together with the chesnut and the elm of Europe, abound almost as much as the oaks in the United States. The tulip tree and the sassafras, more sensible to cold than these others, are stunted shrubs, on the confines of Canada, assume the character of trees in the middle states, but it is upon the hot banks of the Alatomaha that they develop their full growth, and display all their beauty and grandeur. The sugar maple, on the other hand, is not seen in the southern states, except upon the northern slopes of the mountains, while in the colder climate of New-England it reaches its full natural dimensions. The liquidambar, which yields an odorous gum, the ironwood (*Carpinus ostrya*), the nettle tree, the American elm, the black poplar, and the *tacamahaca*, are found growing in every place where the soil suits them, without showing any great preference for one climate more than another. The light and sandy soils are covered with the useful tribe of pines, of which the principal species are, the common fir, the beautiful hemlock fir, the black and the white pine, and the larch.^h We may

also class with this family of trees, the *Arbor vitæ* (*Thuja occidentalis*), and the American red cedar (*Juniperus Virginiana*.) Among the shrubs generally diffused in the United States we may reckon the *Chionanthus* or fringe tree, the red maple, the sumach, the poison vine (*Rhus radicans*), the red mulberry, the thorn bush (*Cratægus*), the persimmon, the locust-tree (*pseudacacia*), the honey-locust (*Gleditsia triacanthos*), &c.ⁱ

The United States, generally speaking, do not present the beautiful verdure of Europe; but among the larger herbs which cover the soil, the curiosity of botanists has distinguished the *Collinsonia*, which affords the Indians a remedy for the bite of the rattlesnake, several species of *Phlox*, the golden lily,^k and the biennial *Oenothera*, with several species of *Aster*, *Monarda*, and *Rudbeckia*.

It is in Virginia, and in the southern and south-western states, that the American flora displays its wonders, and the savannas their perpetual verdure. It is here the magnificence of the primitive forests, and the exuberant vegetation of the marshes, captivate the senses by the charms of form, of colour, and of perfume. If we pass along the shores of Carolina, Georgia, and Florida, groves in uninterrupted succession seem to float upon the waters. By the side of the pine is seen the mangrove, the only shrub which thrives in salt water, the magnificent *Lobelia cardinalis*, and the odoriferous *pancratium* of Carolina, with its snow-white flowers. The lands to which the tide reaches are distinguished from the lands which remain dry by the crowded and waving stalks of the cane (*Arundo gigantea*), by the light foliage of the *Nyssa aquatica* (water tupelo,) by the *tacamahaca*, the fringe tree, and the white cedar (*Cupressus disticha*), which perhaps, of all the trees of America, presents the most singular aspect. Its trunk, where it issues from the ground, is composed of four or five enormous buttresses, which, uniting at the height of seven or eight feet, form a sort of open vault, from the summit of which rises up a single straight stem of eighteen or twenty feet in height, without a branch, but terminating in a flat canopy, shaped like a parasol, garnished with leaves curiously figured, and of the most delicate green. The crane and the eagle fix their nests on this aerial platform, and the paroquets, which are continually hovering around it, are attracted to it by the oily seeds inclosed in the little cones suspended from the branches. In the natural labyrinths which occur in these marshy forests, the traveller sometimes discovers small lakes, and small open lawns, which would present the most seductive retreats, if the unhealthy exhalations of autumn permitted him to inhabit them. Here he walks under a vaulted roof of *smilax* and wild vines, among creeping lianas, which entangle his feet with their flowers; but the soil trembles under him, clouds of annoying insects hover around him, monstrous bats overshadow him with their hideous wings, the rattlesnake musters his scaly terrors, while the wolf, the carcajou, and the tiger-cat, fill the air with their savage and discordant cries.

The name of savannas is given to those vast prairies of the western region, which display a boundless ocean of verdure, that deceives the sight by seeming to rise towards

^a Locust-tree.

^b Bay-tree, *Laurus borbonia*.

^c *Cupressus disticha*?

^d Basswood, *Tilia*.

^e *Platanus occidentalis*, button-wood.

^f *Quercus phellos*.

^g *Quercus prinus*.

^h *Hæmatac*.

ⁱ Michaux, Voyage à l'ouest des Alleghans, et l'Histoire des arbres forestiers de l'Amérique septentrionale.

^k "Martagon."

the sky, and whose only inhabitants are immense herds of bisons or buffaloes. The name is also given to those plains which skirt the rivers, and are generally inundated in the rainy season.^a The trees which grow there are of the aquatic species. The *Magnolia glauca*, the American olive, and the *Gordonia argentea*, with its odorous flowers, are seen here isolated, or in groups, while the general surface of the savanna exhibits a long and succulent herbage, mixed with plants and shrubs. The wax myrtle^b appears conspicuous among many species of *Azalea*, *Kalmia*, *Andromeda*, and *Rhododendron*, here widely scattered, there collected into tufts, sometimes interlaced with the purple passion flower, sometimes with the capricious *Clitoria*, which decorate the alcoves with rich and variegated festoons. The margins of the pools, and the low and moist spots are adorned with the brilliant azure flowers of the *Ixia*, the golden petals of the *Canna lutea*, and the rosy tufts of the *Hydrangea*; while an infinite variety of species of the pleasing *Phlox*, the sensitive briar, the irritable *Dionea*, and the flame-coloured *Amaryllis atamasco*, in those places where the tide reaches the impenetrable ranks of the palmetto royal,^c form a fanciful girdle to the woods, and mark the doubtful limits where the savanna rises into the forest.

The calcareous districts, which form the great portion of the region west of the Alleghanies, present certain places entirely destitute of trees, called *barrens*, though capable of being rendered productive. The cause of this peculiarity has not been accurately examined. The parts of this region which are elevated three or four hundred feet, and lie along deeply depressed beds of rivers, are clothed with the richest forests in the world. The Ohio flows under the shade of the plane and the tulip tree, like a canal dug in a nobleman's park, while the *lianas*, extending from tree to tree, form graceful arches of flowers and foliage over branches of the river. Passing to the south, the wild orange tree mixes with the odoriferous and the common laurel. The straight silvery column of the papaw fig, which rises to the height of twenty feet, and is crowned with a canopy of large indented leaves, forms one of the most striking ornaments of this enchanting scene. Above all these towers the majestic *magnolia*,^d which shoots up from that calcareous soil to the height of more than a hundred feet. Its trunk, perfectly straight, is surmounted by a thick and expanded head, the pale green foliage of which affects a conical figure. From the centre of the flowery crown, which terminates its branches, a flower of the purest white rises, having the form of a rose, and to which there succeeds a crimson cone: this, in opening, exhibits rounded seeds of the finest coral red, suspended by delicate threads at least six inches long. Thus, by its flowers, its fruit, and its gigantic size, the magnolia surpasses all its rivals of the forest.

A general Land Office exists at Washington, which is vested exclusively with the power of contracting with the Indians for the sale of their lands.^e Private individuals are not allowed to have any transactions of this description with the natives; and the law has been rigorously observed. In 1813 there were 148,876,000 acres of land,

of which the Indian title had not been extinguished, on the east side of the Mississippi, situated chiefly in Michigan, the North West Territory, Indiana, Illinois, and in Mississippi. The lands are surveyed and set off into townships of six miles square, each of which is divided into thirty-six sections of one mile square, or 640 acres. The dividing lines run in the direction of the cardinal points, crossing one another at right angles. One section, or one thirty-sixth part of each township, is allotted for the support of schools, and in the country west of the Alleghanies seven entire townships have been given, in perpetuity, for the endowment of superior seminaries of learning: The lands are offered to public sale, in quarter sections, of 160 acres, at the *minimum* price of one and one fourth dollar per acre, and whatever remains unsold, may be purchased privately at this price. Formerly, the minimum price was two dollars per acre, payable in four years, by four instalments; but by act of Congress, in 1821, it was fixed at one and one fourth dollar ready money. This new regulation was adopted to discourage the practice of speculating in land, and to lessen the litigation arising out of protracted payments. The title deed is printed on a small sheet of parchment, with the date; the purchaser's name, and the topographical situation of the ground, are inserted in writing. It is subscribed by the President of the United States, and the Agent of the Land Office, and delivered without charge to the purchaser, who may transfer the property to another person by a process equally cheap and simple.^f

It was estimated by Hutchins, that thirteen sixteenths of the country east of the Mississippi (excluding Florida) are covered with a strong fertile soil, fitted, with a moderate degree of cultivation, abundantly to repay the labours of the husbandman. Of the remaining three sixteenths, about 57,000,000 acres are covered with water; about 40,000,000 acres consist of a mountainous country, almost universally forested, and which, from the nature of its surface, rather than its soil, is unfit for cultivation; and about 29,000,000 acres are either sandy, or covered with so poor a soil, as to offer slight encouragement, except to the most elaborate agriculture, when the general value of land shall be greatly advanced. Of 520,000,000 acres capable of advantageous cultivation, only 40,950,000 were estimated by Mr. Blodget, to be under actual improvement in 1811. This is about $5\frac{3}{4}$ acres for each individual of the contemporaneous population. Taking the present population at ten millions, and allowing the same quantity for each person, the land under actual improvement must now be nearly 60,000,000 of acres, which is about one twelfth part of the whole surface east of the Mississippi, including Florida. According to returns made in 1793, the land valued, and upon which tax was paid in sixteen states, was 163,000,000 out of 308,000,000 acres, or a little more than one half, and the estimated value was 479,000,000 of dollars. The population then being about five millions, the *appropriated* land amounted to about thirty acres for each inhabitant. The average value was about three dollars per acre, but in some of the old and thickly settled states, it was as high as fifteen dollars per acre. The value of the houses was about 140,000,000 of dollars, or two sevenths of that of the lands.

^a The term *savanna* is more generally applied to the low open plains, particularly in the southern states; the dry open plains are called *prairies*.—P.

^b *Myrica cerifera*.

^c *Yucca gloriosa*.

^d *Magnolia grandiflora*.

^e The business of the Land Office is the survey and sale of the public lands. These lands are purchased of the Indians by treaty with the government of the U. States.—P.

^f Warden's Statistical, Political, and Historical Account of the United States, 1819. III. 237. Fint's Letters from America, 1822. p. 153. 314.

When returns were made a second time in 1814, the value of houses and lands jointly, was found to be 1,630,000,000 of dollars; if, therefore, the value of every species of property grew as rapidly as that of houses and lands, each 100 dollars must have increased to 253 in an interval of fifteen years. This implies an annual augmentation of $6\frac{1}{3}$ per cent. at which rate the capital of the country must double in eleven or twelve years—in other words, the capital is increasing with twice the velocity of the population.

In a country having so many varieties of soil and climate as the United States, there is necessarily a considerable diversity in the agricultural productions. Maize, or Indian corn, is cultivated in all parts of the country, but succeeds best in the middle states. It is a most useful vegetable, fitted to a greater variety of situations than wheat, and yielding generally double the produce. Wheat is also raised in all parts of the country, but thrives best in the middle and western states. The cultivation of Tobacco begins in Maryland, about the thirty-ninth or fortieth parallel, and continues through all the southern, and partially through the western states. It forms the staple of Maryland and Virginia. Cotton grows as far north as 39° , but its cultivation is not profitable beyond the latitude of 37° . This useful plant was first raised for exportation only in 1791. It is now produced in immense quantities from the River Roanoke to the Mississippi, and forms the leading export of the United States. The best grows in dry situations in Carolina and Georgia upon the sea coast. The rice crops, which require great heat, and a soil susceptible of irrigation, commence about the same parallel, and have nearly the same geographical range. The sugar-cane grows in low and warm situations, as high as the latitude of 33° ; but the climate favourable to its cultivation does not extend beyond $31\frac{1}{2}^{\circ}$. It is now cultivated to a great extent in Georgia, Alabama, Mississippi, and Louisiana. Dr. Morse states, that in Louisiana alone 20,000,000 of pounds of sugar were raised in 1817, when the whole quantity consumed in the republic was estimated at 70,000,000 of pounds. Oats, rye, and barley, are raised in all the northern and middle states. The oats are used for horses food, the barley chiefly for breweries, and the rye for distillation.^a Hemp and flax are raised in the western states.^b The vine thrives as far north as Pennsylvania, but home wines are only made yet to a very limited extent. Natural meadows are more numerous in New-England and New-York than in the parts farther south. Pennsylvania is distinguished by its superior breeds of horses and horned cattle. Merinos of full and mixed blood are now spread over the northern, middle, and western states.^c

The bison, American ox, or buffalo, though it has an eminence on its back, is a distinct species from the zebu

of India and Africa, and the slightly humped aurochs of northern Europe. The American ox has always the neck, the shoulders, and the under part of the body, covered with long woolly hair; it has a long beard under the chin; and the tail does not reach to the houghs. It differs widely also from the small musk ox of the extreme northern parts of the American continent, which has a resemblance, in the singular form of its horns, to the buffalo of the Cape. The moose-deer, which is found from the Rocky Mountains to the Gulf of St. Lawrence, is now rare in the inhabited parts of the United States. It is a gigantic animal, sometimes twelve feet high. The elk, the red deer, and the caribou, which is probably the reindeer, are also found.^d There are two species of bear, the one short-legged, living chiefly on vegetables, the other called the ranging bear, which destroys calves, sheep, pigs, and sometimes children. The wolf is also found in all the states, and is very destructive to cattle. The catamount, of the size of a large dog, and the spotted tiger, five or six feet long, both voracious animals, are rare. The cougar, or American panther, is more common.

No mines of gold^e or silver of any importance have yet been discovered in the United States; but the useful metals are in general abundantly distributed. Some of the ores of iron are found in almost every state; and mines of this metal are worked in New Hampshire, Vermont, Rhode Island, New-York, Connecticut, New-Jersey, Pennsylvania, Virginia, and North Carolina. The number of furnaces, forges, and bloomeries, in 1810, was 530, and the value of the iron manufactured annually, was estimated at twelve or fifteen millions of dollars. The United States are supplied with copper chiefly from Mexico and other foreign countries, but ores of this metal exist in most of the states, and in the North-West Territory are said to be in great abundance in situations of easy access. Lead is chiefly procured from Missouri, where forty-five mines are worked, and yield three millions of pounds annually. Of coal there is a large field twenty miles long by ten broad, twelve miles from Richmond, which has been long worked. This useful mineral is also found at various places in New-England, New-York, and Pennsylvania. But the most abundant supply is on the west side of the Alleghanies, where a coal formation, one of the largest in the world, extends, with some interruption, from the western foot of the mountains across the Mississippi. Salt is chiefly obtained from the sea, or imported in the eastern States; but brine springs abound over the great valley of the Mississippi, from the Alleghanies to the Rocky Mountains, and in some situations on the western side of the valley, plains occur of many miles in circuit, which are periodically covered with a thick crust of salt.^f ^g

^a Rye is generally used for bread-corn in the eastern states.

^b Flax is cultivated generally in the northern and eastern states for domestic use.

^c Warden's Introduction, p. 29.

^d The following are the species of deer found in the U. States: the moose deer, (the European elk;) the wapite, red deer, or American elk: the common American deer; and the mule deer, on the Missouri.—P.

^e Gold is found extensively in the upper country of N. Carolina, and in some few points in the adjacent parts of Virginia and S. Carolina. It is found in alluvial deposits, and has been lately wrought to a considerable extent.—P.

^f Warden's Introduction. Morse, I. 282.

^g The salt springs, at Salina, in New-York, produced, in 1800, 42,754 bushels; in 1823, 606,463 bushels; in 1824, 820,962 bushels; in 1825, 736,622 bushels.—P.

BOOK LXXX.

AMERICA.

Description of the United States continued.—Topography and Statistics of the several States.

HAVING described the limits and extent of Federal America generally, and completed our sketch of its physical geography, we have now to speak a little more in detail of the several states which compose the republic.

The American Federation embraces at present (1824) *twenty-four* distinct states, each ruled by its own government; *three* territories, in which civil governments are established without constitutions; and *three* other territories yet unoccupied by a civilized population.^a A view of the extent, population, commerce, &c. of the whole, will be found in the tables subjoined to this article.

If we attend to the distinctions which exist among these various states and territories, founded on their physical circumstances, or the pursuits and character of the people, we may class them into four grand groups; first, New-England, embracing the six states east of the Hudson, which is the most thickly peopled, and the most commercial section of the Union. Second, the middle states, including New-York, Pennsylvania, New-Jersey, Delaware, and Maryland, in which the agricultural character is united with, and qualified by the commercial. Thirdly, the southern states, including Virginia and all the maritime country to the Mississippi, where the amount of commerce is comparatively small, where slaves are numerous, and the husbandmen are generally planters. Fourth, the western states, in the basin of the Ohio, enjoying the best soil and climate in the United States, where there are few slaves, and where the character of the people is almost purely agricultural. We shall begin with the first class.

Maine embraces an area of 32,000 square miles. It contains much poor soil along the coast, and many barren mountains in the interior. The climate, though severe, having five months of frost and snow, is remarkably healthy. Wheat, rye, oats, and barley, are cultivated, but pasturage and the feeding of cattle are leading objects of attention. The manufactures are chiefly domestic, and were estimated at 2,138,000 dollars in 1810. The inhabitants carry on commerce with much activity, and possess a greater amount of tonnage than the state of Pennsylvania. The chief exports are timber and fish. Maine was a dependency of Massachusetts till 1820,^b when it received a constitution as an independent state, and became a member of the federal body. The population, which in 1790

amounted only to 96,540, was found to be 298,335 in 1820. Portland, its chief town, which has a fine harbour, contained at the last mentioned date 8581 inhabitants. The Governor, Senate, and House of Representatives, are all elected annually by the male inhabitants of the age of twenty-one and upwards. There are schools in almost every township, besides twenty-five academies in the more populous places. The prevailing religious sects are the congregationalists and baptists. There are some methodists, episcopalians, catholics, and universalists. The people are moral, active, industrious, and enterprising.^c

New-Hampshire lies between Maine, Vermont, and Massachusetts, and embraces an area of 9280 square miles. The surface in the interior rises into mountains, which are clothed with wood, except their highest summits. The ground is in general very fertile: the uplands afford rich pastures, and the interval lands, along the rivers, heavy crops of hay and wheat. In the natural state, the varieties of soil are distinguished by the growth of wood. Thus, white oak and chesnut indicate a soil that is hard and stony; pitch pine one that is dry and sandy; white pine a soil light and dry, but deeper; spruce and hemlock a thin, cold soil; beech and maple a warm, rich, loamy soil. It is observed that winter rye thrives best on new land, and maize or barley on old. The climate is severe but healthy: the ice lasts three months on the lakes and rivers, which are then crossed by loaded wagons. The state has only eighteen miles of sea coast, in which is one excellent harbour, that of Portsmouth. It is chiefly an agricultural state, and has but little commerce. It has considerable manufactures of iron, cotton, and woollen, &c. the whole annual value of which in 1810 was estimated at 8,135,027 dollars. It has one college, which is not very numerously attended, about twenty academies, and by law every town is obliged to have one or more common schools. The inhabitants, who amounted to 141,885 in 1790, and to 244,161 in 1820, have the general character of the New-Englanders. They are tall and strong, industrious, well informed, and enterprising, frugal, religious, and jealous of their rights. Portsmouth, the largest town in the state, had 7327 inhabitants in 1820. The Governor, Senate, and House of Representatives, are all elected annually by the male, of full age, paying state taxes.

Vermont is situated between Lower Canada, New-Hampshire, Massachusetts, and New-York, and contains 10,200

^a The District of Columbia is under the immediate control of the general government.—P.

^b Rather a part of the state, having the same rights, powers, and privileges, as Massachusetts proper.—P.

VOL. II.—NOS. 77 & 78.

^c This, and the following statistical sketches of the various states, are taken from Mr. Mellish's work, ed. 1822, Dr. Morse's, ed. 1819, and Mr. Warden's book, printed in 1819, with the addition of a few facts taken from recent English travellers.

square miles of surface. It is a beautiful picturesque country, entirely inland, abounding in mountains, which are universally covered with wood,—with birch, beech, maple, ash, elm, and butternut, on the east side, and with evergreens on the west. The crops also feel the influence of these different exposures, for winter wheat, which is extensively cultivated on the west side of the mountains, does not thrive on the east. Maize, barley, oats, and flax, succeed every where, and the pastures are excellent. The snow lies three months. The number of inhabitants was 85,539 in 1790, and 235,764 in 1820. The value of its manufactures was estimated at 4,326,000 dollars in 1810. The state has two colleges, neither of which is numerously attended; it has an academy generally in each county, and common schools in all the towns. The congregationalists and baptists are the most numerous sects. Vermont was attached to New-York till 1791, when it was created an independent member of the Federal Union. Its legislature consists of a House of Representatives only, which, with the Governor, is elected annually, by all the resident males of full age. There is no Senate, but there is a council of Censors, elected once in seven years, whose business is to inquire whether the Legislature and Executive have done their duty, and whether the constitution has remained inviolate.

The state next in order as we proceed southwards, is *Massachusetts*, which embraces 7800 miles of surface. This state is uneven and hilly generally, and mountainous near its western extremity. The soil in the southern parts is sandy; in the rest of the state it is generally strong, and well adapted either for grazing or grain. The agriculture is better conducted than that of any other state, except Connecticut and Pennsylvania. The average produce, per acre, of the good lands, is estimated to be thirty bushels of maize or corn, thirty of barley, twenty of wheat, fifteen of rye, and two hundred of potatoes. The ox is more used than the horse in agriculture. The population was 378,787 in 1790, and had increased to 523,287 in 1820. Massachusetts is in fact the most densely peopled, the richest, and perhaps the most highly civilized state in the Union. It has the principal share of the American fisheries, and a greater amount of commerce and shipping than any other state.

Boston, the capital of the state, is a large handsome city, beautifully situated on a small peninsula in Massachusetts Bay, being surrounded on all sides by the sea, except where a long narrow neck connects it with the continent. The more ancient part of it is not very regular, and has very much the appearance of an old English town; but the more recent streets are spacious and regular, and the buildings generally very handsome. The harbour is one of the safest and most commodious in the United States, being secure from an enemy, and from every wind, and capable of containing five hundred ships. Boston is the seat of a very extensive commerce, both foreign and domestic, conducted by a people who unite extraordinary enterprise with great industry and perseverance. The public buildings, the wharfs, the bridges, all indicate the taste and activity of the community; and the vast capital vested in shipping, with the growing magnitude of the population, are proofs of its increasing wealth and prosperity. Boston may also be considered as the literary capital of the United States, so far as regards native publications,

though the reprinting of European works is carried on to a greater extent in Philadelphia. It has the honour, too, of being the cradle of the revolution, and of American independence. Boston contained 43,940 inhabitants in 1820.^a There are many other considerable towns, among which may be mentioned Salem, with 11,346 inhabitants, Newburyport 6852, Gloucester 6384, and Charlestown 6591.

Massachusetts is extremely well supplied with seminaries for education, and the people are universally well informed. By law every town containing fifty families is bound to maintain a common English school, and every town with 200 families must maintain a school for Greek and Latin. There are two colleges in the state—one of which, Harvard college, is the most richly endowed, and perhaps the most efficient in the United States. Its property is estimated at 600,000 dollars, (132,000*l.*) and its library contains 25,000 volumes. The congregationalists are three times more numerous in this state than any other sect. The next in number are the baptists. The religious austerity for which the Bostonians were formerly distinguished, has been greatly softened down, though it was not till 1798 that a theatre was opened in the town. Throughout this state, and in other parts of New-England, unitarian doctrines are said to be making rapid progress. The government of Massachusetts is vested in a Senate and House of Representatives, chosen annually by all the male citizens of full age who pay taxes.

Rhode Island is the smallest state in the union, its area, which is 1360 square miles, not exceeding that of a middling English county. The soil is of moderate fertility, but the climate is held to be one of the most salubrious in the United States. It has a greater proportion of manufactures, in proportion to its population, than any other state, containing from 90 to 100 cotton mills, and a vast number of power looms. Its commerce is also considerable. The population of the state was 68,825 in 1790, and 83,059 in 1820. At the latter date, Providence, its chief town, contained 11,787 inhabitants. This State, unlike the other members of the federal body, has no written constitution, being still governed by the charter granted by Charles the Second, in virtue of which the people elect annually a Senate and House of Representatives, who exercise the legislative power, and a Governor who exercises the executive.

The state of *Connecticut* lies between Rhode Island, Massachusetts, and New-York, and embraces an area of 4670 square miles. The surface is undulating or hilly, the soil generally fertile. The climate, like that of Rhode Island, is very salubrious. The agriculture of Connecticut is of a very improved kind; and it abounds in manufactures of cotton, woollen, linen, leather, iron, tin, &c. It has also a considerable coasting trade, and is in all respects one of the most industrious thriving states in the Union. Its population has increased more slowly than that of any other state; being 237,946 in 1790, and 275,248 in 1820. But Connecticut and Massachusetts are the great nurseries of men for the western regions; and they send a greater proportion of emigrants across the Alleghanies than any other section of the republic. New-Haven, the capital,^b had 7147 inhabitants in 1820. The people of this state are universally well educated, common schools being estab-

Population, by census in 1825, 58,281.

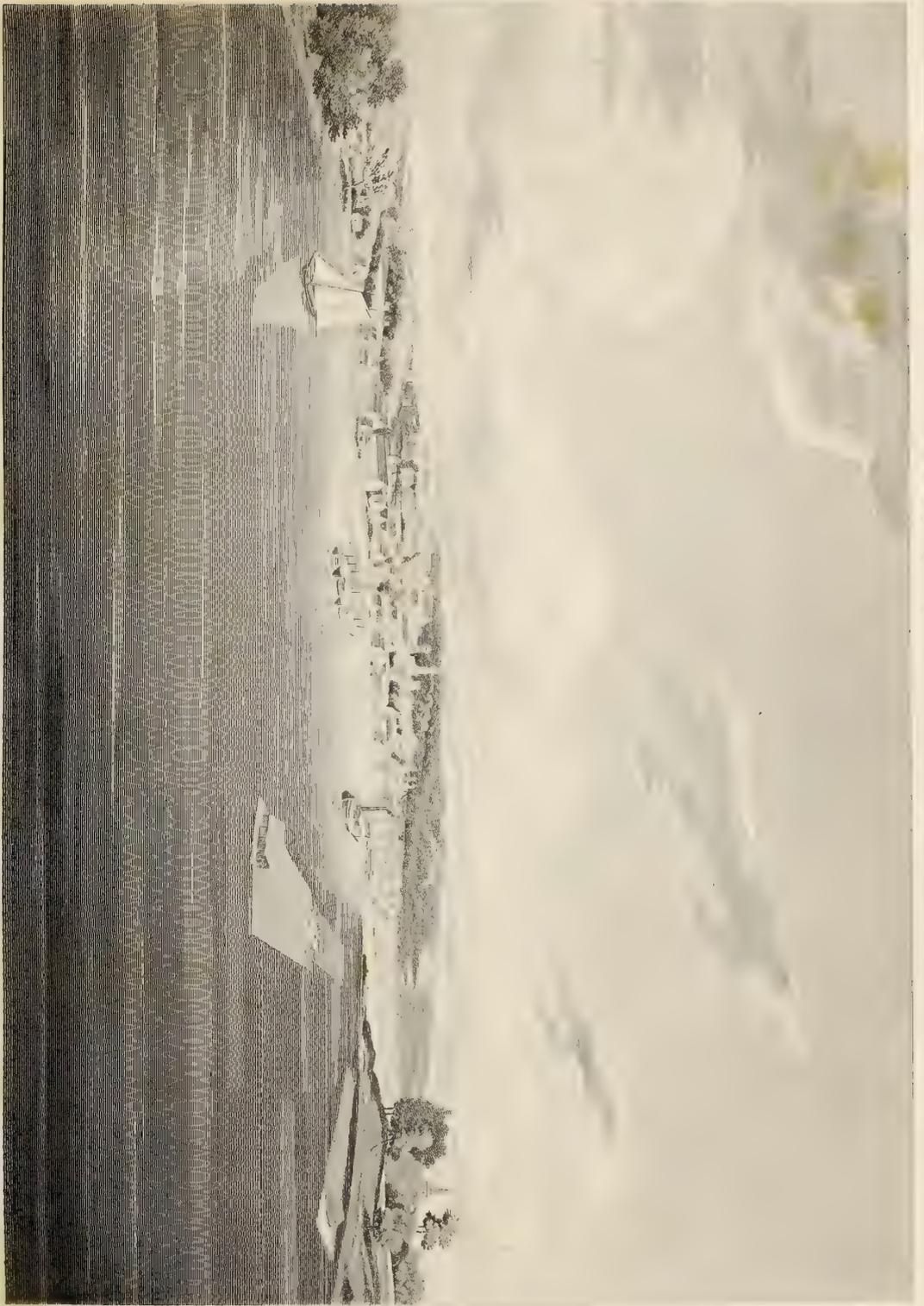
^b The legislature meets alternately at Hartford and New-Haven.—P.



View of N. York.

View of N. York.

NEW-YORK,



ALBANY,

C. VAN DER BEEK

lished in every town. Yale College, for the higher branches of education, is one of the most flourishing and best conducted seminaries in North America.

New-York.—New-York, which held only the fifth rank among the states in 1790, is now the most populous and powerful of the whole. It embraces an area of 46,200 miles, which is one half larger than that of Ireland, though it forms but the twentieth part of the surface of the gigantic republic east of the Mississippi. But if we estimate its importance by the intelligence of the people, their physical, moral, and commercial activity, and the wonderful spirit of improvement they display, we shall find that this small community is entitled to take precedence of many second rate European kingdoms, and of the whole empire of Mexico.

The country displays every variety of surface, from the level and undulating to the hilly and mountainous. The soil is of a mixed character: pretty good, but dry, in the south-east; poor and stony in the north-east; generally rich, but sometimes marshy, in the north-west; and hilly, but well adapted for grazing, in the south-west. The climate also is considerably diversified: it is cold in the north, towards the St. Lawrence; but milder in the south-east, and in the country lying along the southern shores of Lake Ontario. The state abounds, beyond any other, in beautiful and picturesque sheets of water. Lake Champlain, 128 miles long, and from half a mile to 12 miles broad, is chiefly in New-York. It affords good navigation, and has a considerable amount of shipping on it, including one or two steamboats. Lake George, 35 miles long, and higher by 100 feet, is beautifully situated among lofty mountains. A series of long and narrow lakes, all extending in a south and north direction,^a and surrounded by eminences richly clothed with wood, adorn the fertile country south of Lake Ontario. The largest are, Oneida Lake 22 miles long, Seneca 35 miles, Cayuga 36 miles, Canandaigua 16 miles, Crooked Lake 20 miles long, Skeneatles 14 miles, Owasco 11 miles, and Onondago 9 miles. They are almost all situated upon the courses of rivers, and are generally navigable. Wooden bridges strong enough to bear wagons are built over some of these lakes. The Americans are remarkably skilful in this sort of carpentry. One bridge, which crosses the Cayuga, is a mile in length, and cost 25,000 dollars. It is but twenty years since settlements began to be formed in this rich district, and it already possesses a large and prosperous population. "With Utica," says lieutenant Hall, speaking of the country south of Lake Ontario, "commences that succession of flourishing villages and settlements which renders this tract of country the astonishment of travellers. That so large a portion of the soil should, on an average period of less than twenty years, be cleared, brought into cultivation, and have a large population settled on it, is in itself sufficiently surprising; but this feeling is increased when we consider the character of elegant opulence with which it every where smiles on the eye. Every village teems like a hive with activity and enjoyment: the houses, taken generally, are on a large scale, for (excepting the few primitive log huts still surviving) there is scarcely one below the appearance of an opulent London tradesman's country box; nor is the style

of building very unlike these, being generally of wood, painted white, with green doors and shutters, and porches or verandas in front."^b "In passing through the United States," says another observer, who went over the same tract, "the traveller is particularly struck with the elegance and magnitude of the villages; and often feels inclined to ask where the labouring classes reside, as not a vestige of the meanness and penury that generally characterises their inhabitants is to be discovered. One would almost suppose Canandaigua and Geneva to have been built as places of summer resort for persons of fortune and fashion; since so much taste, elegance, comfort, and neatness, are displayed in the design, appearance, and arrangement of the houses which compose them."^c

New-York, the principal town in the state, is the greatest commercial emporium in the new world, and is perhaps second only to London in the magnitude of its trade. It is finely situated at the south end of Manhattan Island, at the head of a beautiful bay, nine miles long, and has an admirable harbour of unlimited extent, and capable of admitting vessels of any size close to the quays. The city extends about three miles along the harbour, and four miles along East River, and its progress has been so rapid that its population, which was only 33,131 in 1790, amounted to 123,706 in 1820.^d It is less regular in its plan than Philadelphia, but its situation is more picturesque and commanding. The houses are mostly of brick, and many of them handsome. There are sixty places of worship, some of which are elegant. The city is adorned with several other fine buildings, the most celebrated of which is the city hall.

The Hudson, now united with Lake Erie by one canal, and with Lake Champlain by another, affords New-York advantages for inland trade far surpassing those of any other city in the United States except New-Orleans. About half the foreign commodities used in the United States are imported here, and the export in 1820 amounted to 13,162,000 dollars, (2,800,000*l.*) of which 7,898,000 was domestic produce. There were nine or ten daily newspapers published in the city in 1822.

According to returns made in 1821, 10,039,804 yards of cloth, of cotton, woollen, or linen, were made in the state that year. There were, at the same period, 184 cotton and woollen manufactories, 172 trip hammers, and 4304 saw-mills. The tonnage belonging to the state in 1821 was 244,338 tons. The population in the interval between 1790 and 1820 increased from 340,120 to 1,372,812,^e—a rate of increase not paralleled in any other of the old states. Among the public improvements in the state, it would be unpardonable not to mention the grand canal which connects Lake Erie with the Hudson. It commences in the neighbourhood of Albany,^f follows the course of the Mohawk river, and thence proceeding in a line parallel to the southern shores of Lake Ontario, it joins Lake Erie at Buffaloe. It is 362 miles^g long, 40 feet wide at top, 28 at bottom, and 4 deep, and has an aggregate rise and fall of 654 feet, which is effected by 81 locks. It was begun in 1817, will be finished in 1824,^h and cost about five millions of dollars. The canal is the property of the state, which advanced the funds for its execution,

^a Oneida Lake extends in an east and west direction.—P.

^b Travels in Canada and the United States, in 1816 and 1817, by Francis Hall, p. 181.

^c Howison's Sketches of Upper Canada, &c. 1821. p. 290.

^d Population, by census in 1825, 167,059.

^e Population, by census in 1825, 1,616,548; militia, 180,645; voters, 296,132; blacks, 39,701; paupers, 5,610; acres cultivated, 7,160,967.—P.

^f It commences in a basin at Albany.

^g 363; 688 feet lockage.

^h It was completed in 1825.

and must be admitted to be a noble monument of the opulence and public spirit of so small a community.

It is impossible to praise in adequate terms the enlightened zeal which this state has shown in promoting education. According to a report made to the legislature in March, 1824, there were in the state, in 1823, no less than 7382 common schools, at which were educated 400,534 young persons, being 27,000 more than the whole number of children between the ages of five and fifteen, and actually exceeding one-fourth of the entire population. In no other country in the world, as the reporter observes, is the proportion of persons attending the schools nearly so large. There are besides, 40 academies, and five colleges, which receive altogether about a million of dollars annually. The prevailing religious sects are the Presbyterians, Baptists, Episcopalians, Methodists, Dutch Reformed, German Lutherans, Quakers, &c. all of which support their own preachers without receiving any assistance from the state. The constitution, as amended in 1821, vests the legislative power in a Senate and House of Representatives, elected, the former for four years, the latter for one, by all the free citizens paying state taxes. This constitution is remarkable as containing (we believe) the first concession of political rights to the free blacks, who are here allowed to vote at elections if they have been citizens three years, and possess a clear freehold of 250 dollars.^a

New-Jersey lies between Pennsylvania and New-York, and occupies an area of 6900 square miles. The soil is generally sandy and poor towards the coast, and hilly in the interior. It has very little commerce, but a considerable proportion of manufactures, particularly of iron, cotton, and leather. The state is rather deficient in common schools, but has a college at Princeton which enjoys a considerable reputation. The population was 184,139 in 1790, and 277,575 in 1820. The Presbyterians are the most numerous denomination.

Pennsylvania.—The name of Penn gave an early celebrity to the republic of *Pennsylvania*. This benevolent individual, who received his grant from Charles the Second, in 1681, carried out a great number of Quakers with him, from England, united them into a political society by a contract or constitution, and founded Philadelphia, which became the capital of the state. For the first time the peculiar principles of this sect were rendered practically operative in the concerns of government, and furnished the philosophers of Europe with a fine theme for speculation. Penn and his followers, unlike most of the other colonists, were guided by strict justice and good faith, in their transactions with the Indians. In all their public proceedings there was seen that singular plainness of speech, and patriarchal simplicity, which characterize the Quakers; private differences were adjusted by arbitrators instead of judges: and, under the protection of the mother country, the Pennsylvanians were enabled to exhibit the remarkable spectacle of a political community subsisting without the smallest trace of military force; for the Quakers acted rigidly on the principle of not carrying arms, and for a long number of years there was not even a militia in the state.^b As the numbers and business of the colonists increased, however, and as the adherents of other sects multiplied, this primitive simplicity gradually disap-

peared; but modern travellers still observe traces of its existence, in the sobriety, decorum, and orderly habits of the Philadelphians, and in the general moderation of the Pennsylvanians in the political affairs of the federal body, though there has been no want of jealousies and bickerings among themselves. Of 500 congregations in the state, in 1816, only 97, or about one fifth, belonged to the Quakers. There were, at the same period, 86 congregations of Presbyterians, 94 of German Calvinists, 74 of German Lutherans, 60 of Baptists, 26 of Episcopalians, and a few of other sects. According to Dr. Morse, about one half of the inhabitants are of English or New-England origin, one fourth German, one eighth Irish, and the remainder Scotch, Welch, Swedes, and Dutch.

Philadelphia is situated at the narrowest part of the isthmus between the Delaware and Schuylkill rivers, five miles above the point of confluence, and 100 miles from the ocean. Its port is excellent, though liable to the inconvenience of being shut for a few weeks annually by the ice. Large merchant ships can ascend to it by the Schuylkill, and ships of the line by the Delaware. It is the most regularly built large town in the United States. Its principal streets are 100 feet wide, and the others not less than 50: they are shaded with poplars, tolerably paved, well lighted at night, and kept remarkably clean. The houses are of brick, and generally of three stories. There are many handsome buildings in the city, and two which are much admired, the United States Bank, and the Pennsylvania Bank. Philadelphia is distinguished by a greater number of philanthropic, literary, and useful institutions, than any other city in the United States. Its population in 1820 was 114,410.

The Philadelphia prison is a more interesting object to humanity than the most gorgeous palaces: it presents the practical application of principles which worldly men have derided, and philosophy has upheld without daring to hope for their adoption. The exterior of the building is simple, with rather the air of an hospital than a gaol. "On entering the court," says an intelligent traveller, "I found it full of stone-cutters, employed in sawing and preparing large blocks of stone and marble; smiths forges were at work on one side of it, and the whole court is surrounded by a gallery and double tier of work-shops, in which were brush-makers, tailors, shoemakers, weavers, all at their several occupations, labouring not only to defray to the public the expenses of their confinement, but to provide the means of their own honest subsistence for the future. I passed through the shops, and paused a moment in the gallery to look down on the scene below: it had none of the usual features of a prison-house, neither the hardened profligacy which scoffs down its own sense of guilt, nor the hollow-eyed sorrow which wastes in a living death of unavailing expiation; there was neither the clank of chains, nor yell of execration, but a hard-working body of men, who though separated by justice from society, were not supposed to have lost the distinctive attributes of human nature: they were treated as rational beings operated upon by rational motives, and repaying this treatment by improved habits, by industry, and by submission. They had been profligate, they were sober and decent in behaviour; they had been idle, they were actively and usefully employed; they had

^a This concession is not peculiar to the constitutions of New-York. It is granted, without restriction, in the constitutions of Maine, New-Hampshire, Vermont, Massachusetts, New-Jersey, and Pennsylvania. —P.

^b The *British Empire in America*, containing the History, &c. of the British colonies. 2 vols. 8vo. 1741. I. 296.



From the "Illustrated London News"

PHILIPPINE ISLANDS.

disobeyed the laws, they submitted (armed as they were with all kinds of utensils) to the government of a single turnkey, and the barrier of a single grating. The miracle which worked all this was humanity, addressing their self-love through their reason. I envied America this system: I felt a pang that my own country had neither the glory to have invented, nor the emulation to have adopted it."^a

When the principles of the new system of prison discipline were first recommended by Dr. Rush, in 1787, they were considered as the schemes of a humane heart misled by a wild and visionary imagination, such as it was impossible, from the nature of man, ever to realise. The trial was made, however, after much opposition, in 1759. The eventual success of the system has vanquished the prejudices of the great majority of its enemies, and the prison of Philadelphia is become a model for those of the other states. According to the regulations, the criminal, on coming into gaol, is bathed, and clothed in the prison dress, and care is afterwards taken to make him keep his person clean. The prisoners sleep on the floor in a blanket, about thirty in one room, with a lamp always burning, so that the keeper has always a view of the apartment. They take their meals with strict regularity, by the sound of a bell, and in silence. Their food consists of bread, beef, (in small quantity,) molasses, potatoes, mush, and rice. Spirits and beer are never allowed to enter the prison walls. There is a sick-room, but from the regularity of their lives, disease is extremely rare. Work suitable to the age and capacity of the convicts is assigned them, and an account opened with each. They are charged with their board and clothes, the fine imposed by the state, and expense of prosecution, and are credited for their work. At the expiration of their time of servitude, half the amount of the sum left, if any, after deducting the charges, is paid to them. As the board is low, the labour constant, and the working hours greater than among mechanics, they easily earn more than their expenses. On several occasions the balance paid to a convict has amounted to more than 100 dollars; in one instance it was 150: and from 10 to 40 dollars are commonly paid. When, from the nature of the work at which the convict has been employed, or from his weakness, his labour does not amount to more than the charges against him, he is furnished with money to bear his expenses home to his place of residence. The price of boarding is 16 cents (about 9d.) a day. Corporal punishment is prohibited on all occasions, the keepers carrying no weapon, not even a stick; but reliance is placed for the correction of hardened criminals chiefly on the terrors of solitary confinement. The cells for this purpose are six feet by eight, and nine feet high; light is admitted by a small window, placed above the reach of the person confined. No conversation can take place but by vociferation, and as this would be heard, it would lead to a prolongation of the time of punishment. The prisoner is therefore abandoned to the gloomy severity of his own reflections. His food consists of only half a pound of bread per day. No nature has been found so stubborn as to hold out against this punishment, or to incur it a second time. Some veterans in vice have declared their preference of death by the gallows to a further continuance in that place of torment. Finally, as a security against abuses, visiting inspectors attend the prison at least twice a week, to examine into the

whole of its economy, hear the grievances, and receive the petitions of the prisoners, lay monthly reports before the Board of Control, and in every point insure the regularity of the system. As punishments are but necessary evils, and however judiciously conducted will not deliver society from crime, it is not to be expected that the best devised plan should give universal satisfaction. Accordingly, objections have been raised to this system, and its mildness has been represented as a temptation to guilt. But the best informed persons in the United States are decidedly of opinion that it has diminished crime, while it has saved expense to the state, and suffering to the criminal, and in short, that it is recommended by sound policy as much as by humanity.

Pennsylvania unites in a more equal degree than any of its associates, the agricultural and manufacturing with the commercial character. The methods of improving the breeds of cattle, the rotation of crops, the use of manures, and all the leading branches of husbandry, are said to be better understood in Pennsylvania than in any other part of the United States. Among its manufactures, those of iron, established at Pittsburg, on the western side of the Alleghanias, are considerable in amount, and progressively increasing, in consequence of local advantages of the place, which is situated in the midst of abundant mines of iron and coal, and has great facilities for the transportation of its products by the Ohio. According to the amount of its exports, (in 1820,) Pennsylvania holds the third place among the states of the Union, New-York occupying the first, and Massachusetts the second. The capital too, which is the residence of the most distinguished artists, scientific characters, and men of letters in the United States, prints and circulates a greater number of books, journals, maps, and engravings, than any other city in America. Its medical institution enjoys a high reputation, and bids fair in a short time to rival the best medical schools in Europe. The state is but indifferently supplied with common schools, and the people, especially those of German and Swedish origin, are not so well educated as the New-Englanders. The legislative power is vested in a Senate and House of Representatives, elected by the whole male population of full age. The population of Pennsylvania in 1820 was 1,049,458. Area, 43,950 square miles.

What holds true of the state of manners in this state, may be applied to those of the middle states generally, and may be taken as descriptive of the best society in America. In New-York and Pennsylvania, the people generally are perhaps less intelligent than in Massachusetts, but at the same time less pertinacious and intolerant. Though persons in genteel circumstances abound in Philadelphia, society has not yet attained those graces and that refinement which are to be found among the highest classes in Europe. "By society," says a traveller already quoted, "I mean the art of combining social qualities so as to produce the highest degree of rational enjoyment; this supposes a common stock of ideas on subjects generally interesting, and a manner of giving them circulation, by which the self-love of each may be at once roused and satisfied. Public amusements, the arts, and such literary and philosophical topics, as require taste and sensibility, without a fatiguing depth of erudition, a morality rather graceful than austere, and a total absence of dogmatism on all subjects, constitute many of the materials for such an intercourse. In Philadelphia public amusements are nothing; the fine arts

^a Hall's Travels in Canada and the United States, p. 302.

are little considered, because every man is sufficiently occupied with his own business. For the same reason, questions of mere speculation in literature or philosophy would be looked upon as a waste of time; in morality every thing is precise; in religion all is dogma. It may seem strange that a people so generally well informed as the Americans, should be so little sensible to literary enjoyments; not less curious is it, that the freest people upon earth should be straight-laced in morality, and dogmatical in religion. A moment's consideration will solve this seeming inconsistency. The Americans read for improvement, and to make a practical application of their knowledge: they collect honey for the hive, not to lavish its sweetness in social intercourse; hence the form is less considered than the matter; but it is the form which is principally the subject of taste. Again, piquaney in conversation supposes a certain persiflage, a latitude in opinion, which allows every thing to be said on every subject, provided it is said well. This kind of freedom, which appertains perhaps to a corruption of existing institutions, is singularly inapplicable to a country in which all moral duties are positive; and whatever is positive admits neither of speculation nor discussion. The American, silent and reflecting, occupies himself very little with the effect of what he says. "*Briller dans la societe,*" is to him an unmeaning phrase; his politeness is no reflexion of his feelings, but an artificial form he has borrowed to hide a vacuum: and what should have induced a sensible people to borrow a tramping so unsuited to their character? the vanity, probably, to rival the nations of Europe in manners as well as in arts and power. Accomplishments among females are in the same predicament with politeness among the males; they are cultivated upon a principle of vanity to imitate the ladies of Europe; but they seldom enrich the understanding, or give elegance to the manners."^a This applies however to the wealthier classes. It should not be forgotten that the great body of the people are superior to those of any European country in every thing relating either to morals or conduct. Their situation denies them refinement; but they never betray that clownish and downcast air which marks the degraded condition of the peasantry of the old world. They are better informed, and more active in their habits, as well as more independent in their circumstances; they have that reliance on themselves which gives to their manners the charm of being unconstrained and natural, and that manliness of character and self respect which elevates them above mean practices and degrading vices. An American artisan or labourer does not feel that rank, office, or wealth, is necessary to entitle him to open his lips. He never forgets that he is a man, that those around him are nothing more.

Delaware is the least populous state in the Union, and the smallest in extent except Rhode Island. Its soil is but moderately fertile; it has little shipping; but its manufactures are considerable. Area, 2060 square miles. Population, 72,749 in 1820.

In our progress southward, *Maryland* is the first state in which slavery exists to any considerable extent, for in New-York, New-Jersey, and Delaware, the slaves are few in number, and constantly decreasing. It is here also that the system of husbandry peculiar to the southern states begins. The staple of Maryland is tobacco, a plant to which the farmers of the states farther north are almost

strangers, and which is here cultivated by the labour of slaves. The negroes work in sets; the seed is sown in beds of fine mould, and transplanted in the beginning of May. The plants are set at the distance of three or four feet from each other, and are tilled and kept continually free from weeds. When as many leaves have shot out as the soil will nourish to advantage, the top of the plant is broken off to prevent its growing higher. It is carefully kept clear of worms, and the suckers which put up between the leaves, are taken off at proper times, till the plant arrives at perfection, which is in August. When the leaves turn of a brownish colour, and begin to be spotted, the plant is cut down, and hung up to dry, after having sweated in heaps over night. When it can be handled without crumbling, the leaves are stripped from the stalk, tied in bundles, and packed for exportation, in bogsheads containing 800 or 900 pounds. No suckers or ground leaves are allowed to be merchantable. About 6000 plants yield 1000 pounds of tobacco.

Maryland, considering its extent and population, ranks high as a commercial state. Its commercial capital, Baltimore, has had a more rapid growth than any town in the United States, or perhaps in the world. In 1750 it consisted of half a dozen of houses built round the head of the bay; in 1790 its population was 13,503, and in 1820, 62,738. It has an excellent harbour, and a greater amount of shipping than any port in the United States, except New-York and Boston. Its merchants are distinguished by hospitality, polished manners, an extraordinary spirit of enterprise, and a strong attachment to republican principles. Maryland was first settled by a colony of Catholics in 1634, who had the credit of establishing a full religious toleration at an early period. It still contains a greater number of persons of this denomination than all the other states put together. Annapolis, the seat of the government, contains 2260 inhabitants. The population of the state in 1820 was 407,350, including 107,398 slaves. Area, 10,800 square miles.

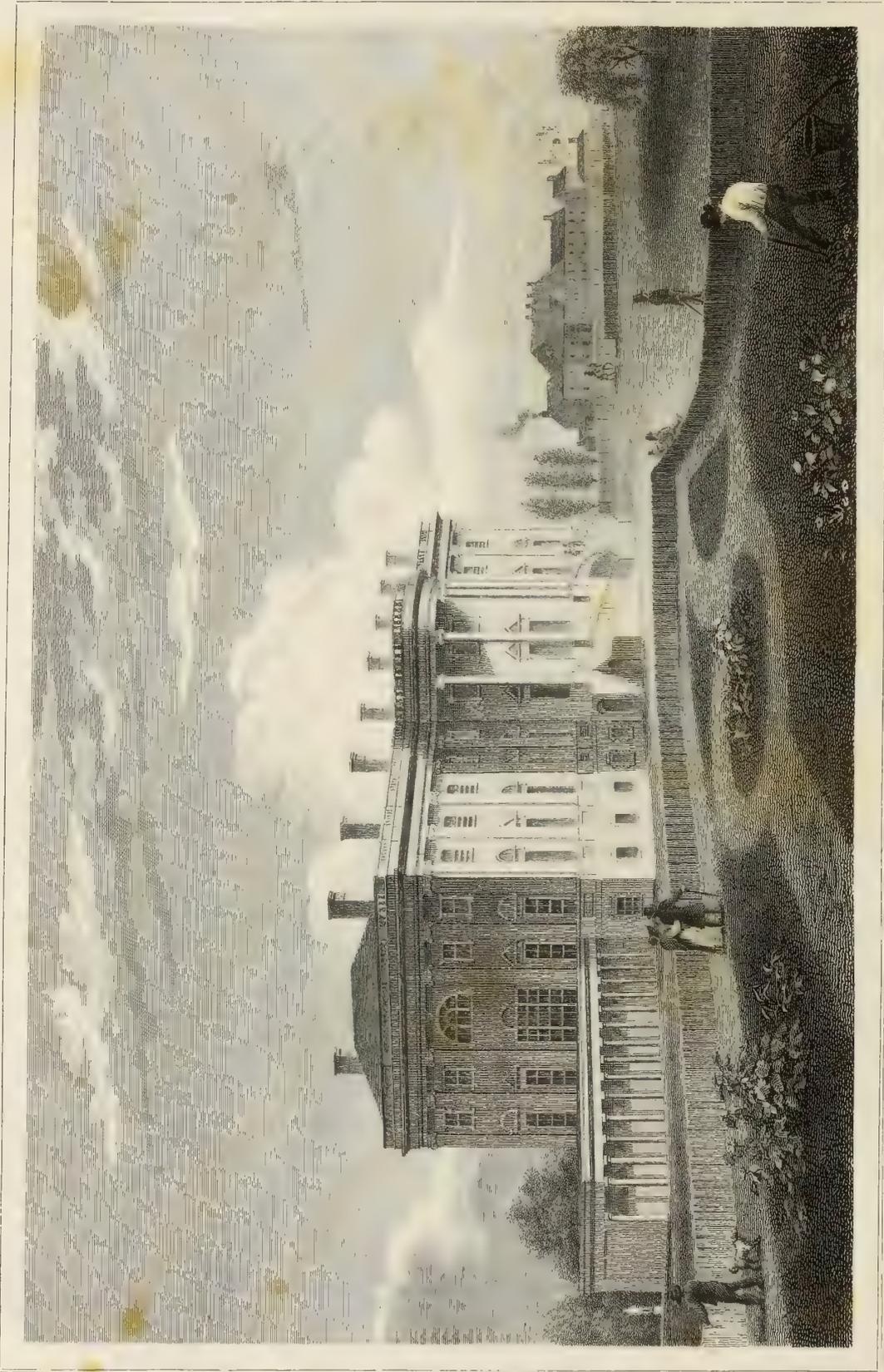
Virginia, the first in order, and the most powerful and populous of the southern states, includes a surface larger than that of England, and greatly diversified in soil and climate. The eastern coast is poor and sandy, and rather unhealthy; the valleys between the ridges of the Alleghanies are fertile and salubrious, and inhabited by an uncommonly tall and vigorous race of men. West of the mountains the climate is temperate and agreeable. The upper country raises excellent wheat; tobacco is extensively cultivated between tidewater and the mountains; and rice, with some cotton, grows near the coast. The first civilized settlement made in the United States, was on James River, in this state, in 1607. The adventurers, who increased from year to year, were reduced, in consequence of the scarcity of females, to import wives by order, as they imported merchandise. It is recorded that ninety girls, "young and uncorrupt," came to the Virginia market in 1620, and sixty in 1621, all of whom found a ready sale. The price of each, at first, was 100 pounds of tobacco, but afterwards rose to 150.^b What the prime cost was in England is not stated.

The illustrious Washington, the brightest model of a patriot in ancient or modern times, was a native of Virginia, which boasts of giving four Presidents to the United States out of five who have held office since the present

^a Hall's Travels, page 290.

^b Morse, I. 470.





THE PRESIDENTIAL MANSION, WASHINGTON.



BALTIMORE,

constitution was established. Washington was born in 1732, appointed Commander in Chief in 1775, elected President in 1789; he retired from that office in 1797, and died in 1799.

Virginia is but indifferently supplied with the means of education; but in 1811 the legislature set apart a sum, which has been increased by subsequent grants to a million of dollars, for founding schools, academies, and a university. If the latter is established on the large and comprehensive plan projected, it will be one of the most perfect institutions of the kind. Virginia is deficient in churches, but religion is making progress. The most considerable sects are the Baptists and Methodists. The Presbyterians, Episcopalians, and Friends, are next in numbers. The Virginians are firm republicans, polite, frank, hospitable, generous, and high-spirited; but they are accused of pride, indolence, irascibility, and other bad qualities, nourished by the existence of slavery. Estimating by the amount of its exports, in 1820, Virginia holds only the eighth rank among the commercial states. The exports consist chiefly of tobacco, flour, Indian corn, pork, lumber, coals. Its manufactures are chiefly domestic, except those of iron, lead, and small arms, which are on a considerable scale. Richmond, the chief town, is beautifully situated at the falls of James River, and contained 12,067 inhabitants in 1820. The population of the state in 1790 was 747,610, and in 1820, 1,065,366, the latter number including 425,153 slaves. Area, 64,000 square miles.

Between Maryland and Virginia lies the Federal District of *Columbia*, comprehending a space of ten miles square, which forms the seat of the federal government, and is placed under its exclusive authority. Nearly in the centre of this district, on an angle formed by the Potomac and another stream, is the city of Washington, the nominal capital of the United States. It is laid out on a regular plan, with a reference to the inequalities of the ground, so that the public edifices, and the large squares and areas, generally occupy sites which command extensive prospects. Ships of burden can come up to the town; and by the Potomac and Shenandoah the city communicates with an extensive and fertile back country. Notwithstanding these advantages, the slow growth of Washington has disappointed the Americans much. The population of the Federal City in 1820 was only 13,247, and that of the District, including Georgetown and Alexandria, 33,039, of whom 6,377 were slaves, and 4,048 free persons of colour. The Capitol is not yet completed, but is allowed to be a very fine building. It contains chambers for the Senate and House of Representatives, apartments for the Supreme Court of the United States, the national library, &c. The President's house is a handsome building, furnished at the public expense, and especially appropriated for the residence of the Chief Magistrate.

North Carolina resembles Virginia in climate, soil, and the character of its population. The alluvial tract along the coast is low, sandy, and barren, abounding in swamps, which produce cedars. The coast is covered by a line of sand banks, which render access to the bays and rivers extremely difficult, and are the cause of numerous shipwrecks. The potato is indigenous in this state, and is supposed to have been conveyed from hence to Ireland in 1587 or 1588.^a The North Carolinians are mostly plant-

ers, and live from half a mile to three or four miles from each other on their plantations. In the upper country, they are farmers. There is no general provision for the support of schools in this state, but education as well as morals and religion has been making progress since the late war. The legislative power is vested in a Senate elected by the landholders,^b and a House of Commons elected by all that pay taxes. The Methodists, Baptists, and Presbyterians, are the predominant sects. This state has few manufactures except of the domestic kind; and its commerce is chiefly with the other states. Population in 1790, 393,751, and in 1820, 638,829. Area, 43,300 square miles.

South Carolina exhibits the character peculiar to the slave states, perhaps in a higher degree than any other section of the Union. The planters are the most opulent of their class, and it is only in this state that the slaves exceed the free inhabitants in number. To the distance of about a hundred miles from the sea, the country is low, flat, sandy, and unhealthy. The rivers here are bordered with marshes, in which are produced large crops of rice. Above this, and reaching to the foot of the mountains, is a fertile country, beautifully diversified with hill and dale, and richly wooded. In addition to many of the fruits of the northern states, South Carolina produces oranges, limes, lemons, figs, and pomegranates. The low country is universally occupied by planters, who cultivate the ground by slaves; in the upper country the population consists chiefly of farmers, who work with their own hands. Cotton, the great staple of the state, is of three varieties. The *black seed* cotton is grown on the sea islands, and in the low country: it produces a fine white fleece, of a silky appearance, very strong, and of a long good staple. *Green seed*, or upland cotton, chiefly cultivated in the middle and upper country, produces a white fleece, good, but of shorter staple, and inferior to the other. It adheres so closely to the seed, that, till the invention of the cotton gin, by Mr. Whitney, it was not worth cleaning. That invention has been of incalculable benefit to the southern states. The *Nankeen* cotton, raised chiefly in the middle and upper country for family use, retains the Nankeen colour as long as it is worn. The cultivation of rice is necessarily limited to lands that admit of irrigation—to swamps on bays, creeks, and rivers overflowed by the tide, and to inland swamps with reservoirs of water. Inland plantations yield from 600 to 1500 pounds of clean rice per acre; tide plantations from 1200 to 1500, and the best as high as 2400 per acre. Rice is sown in the tide lands about 20th March, and in the inland swamps about the second week of April. The land is previously turned up with the plough or hoe, and then drilled by the same instrument into trenches. In these the rice is sown from one to two bushels per acre. The tide planters then flow the fields with water, keeping it on from two to four days. This kills the worm and starts the grain, which appears five or six days afterwards. It is commonly hoed thrice during its growth, and in the second hoeing the grass is picked up by the hand from the trenches, and the rice is then overflowed from ten to twenty days. As the water is gradually drawn off, the plants branch, and on the number of branches depends the size of the crop, each branch producing one ear of from 100 to 300 grains. Three months after sowing it begins to joint, blossom, and form

^a Morse, I. 502.

^b With a freehold of 50 acres, and one year's residence.

the ear. It is then overflowed till harvest, which commences in the end of August near the sea, and in September is general through the state. The rice grounds, thus alternately wet and dry, infect the air with noxious exhalations, and spread bilious and intermitting fevers among the negroes who labour them, and the white settlers who live in their vicinity. A single plantation has often rendered a considerable town unhealthy. Rice was introduced into Carolina from Madagascar only in 1693.

The Carolinians, says Dr. Ramsay, combine the love of liberty, hospitality, charity, and a sense of honour, with dissipation, indolence, and a disposition to contract debts. Hunting and dancing are favourite diversions, and music is cultivated with much diligence and success. The planters, who form the leading class, and have large incomes, live at their ease, are high minded, and possess much of that dignity of character which belongs to our independent country gentlemen. The farmers, who have few or no slaves, are active, industrious, and more simple in their manners. The women are generally well educated, and many of them possess refined manners, and cultivated minds. Their natural vivacity is tempered by sweetness of disposition and discretion. They are affectionate wives, daughters, and mothers; they enjoy prosperity without ostentation, and bear adversity with patience and dignity. "Indolence, ignorance, and dissipation," in the opinion of Mr. Hall, "are leading traits in the character of the planters of the southern states." The manners of the lower classes are depraved and brutal; those of the upper, corrupted by power, are frequently arrogant and assuming. Unused to restraint or contradiction of any kind, they are necessarily quarrelsome; and in their quarrels the native ferocity of their hearts breaks out. Duelling is not only in general vogue and fashion, but it is practised with circumstances of peculiar vindictiveness. "It is usual when two persons have agreed to fight, for each to go out regularly and practise at a mark, in the presence of their friends, during the interval which precedes their meeting: one of the parties therefore commonly falls." It may be added, that the roads, bridges, inns, and public conveyances, are worse in the southern than in the northern states; agriculture and the mechanic arts are in a more backward state; education and knowledge are less generally diffused, and the press is much less active; there is less inland trade, and less shipping in proportion to the population; less, in short, of intellectual activity, and of the spirit of enterprise and improvement.

The exports of South Carolina exceed those of any one of the southern states, except Louisiana, which is properly the outlet of the whole western country. Cotton and rice are the leading articles, after which may be classed timber, pitch, tar, turpentine, beef, pork, indigo, and tobacco. Charleston, the principal town, contained 24,780 inhabitants in 1820; it is the most considerable port for trade between Baltimore and New-Orleans. The population of South Carolina in 1790 was 240,073, including 107,094 slaves. In 1820 it was 502,741, including 258,475 slaves; so that the number of the latter has increased faster than that of the freemen. Area, 30,080 square miles.

As there is a great uniformity both in the physical circumstances of the southern states, and the character of the population, it will not be necessary to speak of the others much in detail. *Georgia*, like the state last described, consists of two tracts of land, an alluvial plain towards the

coast, covered with sands, intermixed with swamps; and a rolling upland country of good soil towards the mountains. The produce and exports are similar to those of South Carolina, and it has few manufactures, except of the domestic kind. The first settlement in this state was formed in 1733, by colonists from Britain, who were sent out with a grant of money by parliament. The population of Georgia in 1790, was 82,548, and in 1820, it had increased to 340,989, of whom 149,656 were slaves. Area, 58,200 square miles.

Alabama was raised to the rank of a state only in 1819. In soil, climate, and productions, it resembles South Carolina and Georgia; but it should be mentioned that, in the latter state, as well as in Alabama, the sugar cane is now cultivated to some extent. Cotton is the staple. This state has wisely made provision, in laying out the public lands, for the support of schools. Population in 1820, 127,901, of whom 41,879 were slaves.^a Area, 50,800 square miles.

Mississippi was received into the Union, as an independent state, in 1817. The soil, produce, and climate, are similar to those of the preceding states. Cotton is the staple, and sugar is cultivated to some extent. The population was 75,448 in 1820, exclusive of Indians, of whom there are a great number in the state. Area, 43,350 square miles.

Louisiana was the name originally given to the vast country west of the River Mississippi; but it is now restricted to a district at the mouth of this river, extending from the Mexican Gulf to the thirty-third parallel, and which was erected into a state in 1811. The southern section of this state includes the Delta of the Mississippi. The country about the mouths of the river for thirty miles is one continued swamp, destitute of trees, and covered with a species of coarse reed four or five feet high. Nothing can be more dreary than the prospect from a ship's mast, while passing the immense waste. The Mississippi flows upon a raised ridge or platform, its two banks forming long mounds which are elevated many feet above the general level of the country. Its waters are lowest in October, and during the height of the inundation in June, they flow over the lower parts of the banks, and cover the adjacent country. From lat. 32° to 31°, the breadth of the overflowed lands is about twenty miles; from 31° to 30°, it is about forty miles. Below 30°, the waters often cover the whole country. The whole extent of lands over which the inundation reaches on the Mississippi and Red River, is estimated at 10,890 square miles; but within this surface there are many tracts which are never covered. The best lands consist of the immediate banks of the river, which are from a mile to a mile and a half broad, and are seldom or never overflowed. They are extremely rich, and sell by the front acre, the depth of each tract being forty, and sometimes eighty acres; but only the twenty acres nearest the river are dry enough to be susceptible of cultivation. To protect this ground from inundation, a *levée*, or artificial embankment of earth, from five feet to thirty in height is raised upon the natural bank of the river, at the distance of thirty or forty yards back from the usual margin of the water. Each proprietor is bound to keep up the *levée* in front of his own land, and on some plantations one sixth of the annual labour is employed in repairing these works.

^a The census of Alabama was not completed till 1822, when it was found to be 144,317. Population, in 1824, 197,000.

The water sometimes bursts these artificial barriers, and rushes out with a noise like the roaring of a cataract, boiling and foaming and tearing every thing before it. When a breach of this kind is made, which is called a *crevasse*, the inhabitants, for miles above and below, abandon every employment, and hasten to the spot, where every exertion is made, night and day, to re-establish the levée; but more frequently the destructive element is suffered to take its course. The consequences are, that the flood overthrows the buildings, and sweeps away the crop, and often the soil, leaving the surface strewn with numerous logs and trees, which must be destroyed before the land can be again cultivated.

The staple productions of Louisiana are cotton, sugar, and rice. The cotton plantations are the most extensive, but those of sugar are rapidly increasing in the southern parts of the state. There is a vast extent of lands adapted to the cultivation of rice. The manufactures of the state are extremely inconsiderable. Its commerce is great, and is daily augmenting. The inhabitants are a mixed race, composed of French, Spaniards, Americans, Canadians, Germans, Africans, and their descendants. The planters live in a splendid and luxurious style; the farmers enjoy a rough abundance, are brave and hospitable, but unpolished. The majority of the inhabitants are Roman Catholics, and, till 1812, there was no Protestant Church in the state. Dancing, gambling, and theatrical amusements, were common after the morning mass on Sundays. Laudable efforts have of late been made to increase the means of education, which have hitherto been deplorably neglected. Of the French inhabitants, not one in ten can read. New-Orleans, the chief town, is situated on the left bank of the Mississippi, 105 miles from its mouth by the course of the river. The French language is used here to a considerable extent, but the English now predominates. Of five newspapers, three are printed in English, and two in both languages. In the legislature, which consists of two houses, elected by all the male population of full age, the French and English parties were pretty equally balanced in 1818, the former having the majority in the House of Representatives, and the latter in the Senate. New-Orleans had about 10,000 inhabitants in 1800, and 27,176 in 1820. It is very unhealthy during four months of the year, but enjoys an excellent situation for trade, being the natural entrepot for the whole basin of the Mississippi, the largest and richest valley in the world. The introduction of steam boats, of which there were 74 on the Mississippi in 1823, has greatly facilitated its communication with Ohio, Illinois, Kentucky, and Missouri, whence it receives vast quantities of raw produce and lumber. The exports of the state in 1820 amounted to 7,382,000 dollars. The population in the same year was 153,407, of whom 69,064 were slaves. Area, 48,000 square miles.

Tennessee is one of the most pleasant, healthful, and beautiful states in the Union. It is free of the barren, sandy tracts, and great swamps, so common in the states of the south, and enjoys a richer soil and better climate than those of the north. Its surface is partly undulating, and partly mountainous. The blighting north-easterly winds are never felt here, and those of the north-west very rarely. Vegetation commences about six weeks earlier than in New-Hampshire, and continues six weeks later. The state is watered by two noble rivers, the Cumberland and

the Tennessee, which are scarcely ever frozen, and afford a great extent of boat navigation. Cotton, tobacco, wheat, hemp, and maize, are the leading articles of raw produce. Its manufactures are chiefly domestic, except those of iron and nitre. Numerous vestiges of ancient dwellings, towns, and fortifications, with mounds, barrows, utensils, and images, are found in this state, wherever the soil is of prime quality, and well situated for water. The venerable forests which now flourish over the spots where these relics are found, demonstrate that the people to whom they owe their origin, had evacuated the country at least five hundred, and more probably a thousand years ago. The population of Tennessee, in 1790, was 35,691, and in 1820 it was 422,813, of whom 72,157 were slaves. Area, 41,300 square miles.

Kentucky is similar in soil and climate to Tennessee, but is rather less mountainous, and has perhaps a greater proportion of fertile, arable land. The Ohio forms its northern boundary, and affords it an easy communication with the sea. The greatest natural disadvantage of this state is the failure of most of the streams during the summer. Kentucky was first explored about 1750, and the first settlement was made in 1773. Its chief agricultural productions are wheat, tobacco, Indian corn, hemp, rye, and, to a small extent, cotton. Vineyards have been found to succeed. Since the late war its manufactures have increased greatly. The people, who consist of emigrants from every state in the Union, and almost every country of Europe, are brave, frank, and hospitable; but they are said to be too much addicted to drinking and gambling, and to show a ferocious and revengeful spirit in their quarrels. The state of education is rather backward, and that of religion not much better. The most numerous denominations are the Baptists, Presbyterians, and Methodists. The Kentuckians, possessing a sanguine, speculative spirit, were deeply infested with the passion for banking, which spread like an epidemic frenzy through the United States some years ago. No less than fifty-four banks were incorporated between 1807 and 1819, in a district containing only half a million of inhabitants. These establishments, after inundating the state with fictitious paper currency, became nearly all insolvent, and produced incalculable distress and confusion in the country.*

There are many ruins of ancient works spread over this state, which prove that at some distant period it was thickly inhabited by a warlike people, superior to the existing Indians in arts and knowledge, who had either migrated to the south or been destroyed. One of these works consists of an ancient fortification near the banks of the Ohio, embracing fourteen acres, and extremely well preserved. The walls in some places are from eight to sixteen feet high, thirty feet wide at bottom, and on the top broad enough for a loaded wagon to pass. Two parallel walls of the same dimensions, and 280 yards long, project westward from one angle, and form a covered way communicating with a rivulet. Other two covered ways of the same kind communicate with streams on the other sides. The construction of the fort shows that it must have been built by men accustomed to labour, possessing considerable science in the business of fortifications, and who probably had iron tools. As the ground is now covered with

* See Flint's Letters from America, No. 16.

the second or third growth of wood, it is plain that the work must belong to a pretty ancient period. A greater quantity of the remains of the mammoth have been discovered in Bigbone valley in this state, than in any other part of North America. The population of Kentucky in 1790 was 73,677, and in 1820 it was 564,317, including 126,732 slaves. Area, 39,000 square miles.

About one fourth of the state of *Ohio* declines to the northern lakes; the other three fourths to the Ohio. The surface of the former is generally flat, and frequently marshy; that of the latter is rolling and uneven, and beautifully diversified with round topped hills, covered with a fertile soil, which bears a rich growth of wood. The country is at the same time watered by many fine streams navigable for boats; it is blessed with an excellent climate; and as slavery does not exert its demoralizing influence here upon society, the state presents greater advantages to agricultural settlers than any other in the western territories. It has accordingly advanced with remarkable rapidity, and already outstrips Kentucky in population, though it was not settled so early by twelve or fifteen years. The average produce of farming land in this state, and in the basin of the Ohio generally, is forty bushels of maize per acre, twenty-two of wheat, twenty-six of rye, thirty-five of oats, thirty of barley, and twelve to fifteen hundred weight of tobacco.* The latter is cultivated only to a limited extent in Ohio for domestic use. The south-east parts of this state possess an unlimited supply of pit coal, which will facilitate the growth of manufactures. Those hitherto established are chiefly domestic. *Prairies*, or large tracts of ground naturally destitute of wood, abound here, and in all the country west of the Alleghanies. In the northern parts of this state, and of Indiana and Illinois, they occupy three fourths of the surface. The Ohio and its larger tributaries are navigable for boats all the year, except from the beginning of December to the middle of February, when the passage is obstructed by ice. During the height of the swell from March to June, large vessels ascend as far as Marietta, and even Pittsburg. Many mounds, embankments, and other monuments of an ancient population, are found in this state as well as Kentucky; but, like the others, they are merely of earth, and not a single column, or brick, or hewn stone, has been discovered. Cincinnati, situated at the south-west angle of this state, is the largest town west of the Alleghanies; it contained 9642 inhabitants in 1820. In this state, and in Indiana and Illinois, one section in each township, or one thirty-sixth part of the whole lands, is set apart for the encouragement of education. The inhabitants are generally an industrious, moral, and orderly people, with much intelligence and enterprise. The prevailing religious sects are Presbyterians, Methodists, and Baptists. The legislative power is vested in a senate chosen biennially, and a house of representatives chosen annually by all the males of full age. The population in 1790 was estimated at no more than 3000, and in 1820 it amounted to 581,434. Area, 38,500 square miles. Ohio was admitted into the Union in 1803.

Indiana resembles Ohio so closely in climate, soil, situation, and the character of its inhabitants, as to render any detailed description unnecessary. It was admitted into the

Union as an independent state in 1816. Its population in 1800 was 5641, and in 1820, 147,178. Area, 36,250 square miles.

Illinois.—For the same reason we shall speak of *Illinois* very concisely. The land of this state is similar in quality to that of the two preceding, except that its surface is generally more level, and less abundantly wooded. At Cahokia and Kaskaskias, and at Vincennes, in Indiana, settlements were formed about 150 years ago by some Frenchmen, who intermarried with the Indians, and were found almost at the same level of barbarism, when the Americans, in their progress westward, broke in upon their isolated abodes. Both Indiana and Illinois are excellent corn countries, and the mineral kingdom yields lead, iron, coal, and salt, in considerable abundance. Illinois was created an independent state in 1818. The population in 1820 was 55,211. Area, 59,000 square miles.

The state of *Missouri* lies on both sides of the river of the same name, and on the west side of the Mississippi. Its surface is uneven or hilly in the northern parts, and in the south it embraces a portion of the Ozark Mountains. It contains still less wood than Illinois, but has a fertile soil generally, and a climate equally temperate. In the south-east part of the state, there is a district 100 miles long by 40 broad, containing most productive mines of lead, of which forty-five are actually worked, and yield annually three millions of pounds of lead of excellent quality. This state, which has unhappily legalised the existence of slavery, was admitted into the Union in 1821. Its population in 1820 was 66,586, including 10,222 slaves. Area, 60,300 square miles.

To this short account of the twenty-four states which compose the federal body, and send members to the national legislature, we shall add a few words respecting those districts, called *Territories*, which are of two kinds. The one kind includes those tracts of country over which the United States claim the right of sovereignty, though inhabited only by Indians. Of these there are three, the *North-West Territory*, *Missouri Territory*, (distinct from the state of Missouri,) and the *Western Territory* on the Pacific Ocean. The other kind includes districts in which civilized settlements have commenced, but the inhabitants not having reached the number of 60,000, which entitles them to form a constitution for themselves, and to send members to Congress, they are governed by a provisional legislature, upon whose proceedings the governor, appointed by the President of the United States, has a negative. They have also the privilege of sending a delegate to Congress, who has the right of speaking, but not of voting. Except in the last mentioned circumstance, these provisional governments are formed very nearly upon the model of the old charters granted by Britain to the American colonies. There are three territories of this description—Florida, Michigan, and Arkansas.

Florida was ceded by Spain to the United States in 1821, and was a valuable acquisition, as it perfects their southern frontier, and removes a hostile power from a position which exposed them to attack. The country is low and sandy, and interspersed with swamps, but it contains some good soil, and abounds in live oak, a species of wood highly valued for ship building. A limestone ridge, elevated not more than 200 or 300 feet above the sea, divides the rivers that flow eastward from those that flow westward, and this is said to be the highest ground in the peninsula,

* James's Account of an Expedition from Pittsburgh to the Rocky Mountains, vol. iii. p. 199.

though it is 150 miles broad. The most considerable places are, St. Augustine on the east coast, which had 3000 inhabitants, and Pensacola on the west, which had 2000, both chiefly of Spanish origin. The latter is the best port in the Mexican Gulf. The population of Florida was estimated in 1820 at 10,000, exclusive of Indians, of whom there are several tribes. Area, 57,750 square miles.

Michigan forms a peninsula, surrounded on three sides by Lakes Erie, St. Clair, Huron, and Michigan. The climate is similar to that of Upper Canada, and though tempered by the proximity of a great body of water, is severe. The winter lasts from the middle of November to the middle of March. The principal productions are wheat, maize, oats, buckwheat, barley, and potatoes. Its surface is generally level, but not deficient in fertility. It seems however to present few attractions to settlers; for the number of inhabitants, which was 4762 in 1810, had only increased to 8896 in 1820. Area, 38,750 square miles.

Arkansas lies on the west side of the Mississippi, between Louisiana and Missouri. Its eastern part is flat, and contains the great swamp which receives the surplus waters of the Mississippi: the western part is uneven, but very bare of wood; the middle is occupied by the broad and low chain of the Ozark Mountains, and is said to be healthful and pleasant. This territory contained 14,273 inhabitants in 1820, of whom 1617 were slaves. Area, 121,000 square miles.

The *North West Territory* is situated between Lakes Superior and Michigan, and the Mississippi. It has a rigorous climate, a soil not unfertile, but thinly wooded, and is said to contain mines of copper, lead, and iron. It has a few white inhabitants, at one or two points, who are subject to the government of Michigan. Area, 144,000 square miles.

The *Missouri Territory* comprehends the vast region situated on both sides of that river, between the state of Missouri and the Rocky Mountains. Of this territory the part between the Missouri and Mississippi is a rolling country, including some low hills. It is chequered by stripes of woodland, which divide it into parterres, but excepting the grounds contiguous to the two rivers, nineteen twentieths of the surface are destitute of timber. The waters of the Missouri are more loaded with soil than those of the Mississippi, and hence the bottom lands of the former are richer than those of the latter. The bottoms of the Missouri are clothed with a deep and heavy growth of timber and under-brush, to the distance of 350 miles from its mouth. As we ascend beyond this, the prairies increase, until at length the wood disappears, except at some few spots. The banks of the Mississippi, above the junction, are still less wooded than those of the Missouri, and the climate towards the sources of both rivers is extremely rigorous. Indeed, after we pass the meridian of 96°, vegetation becomes less abundant and vigorous, and the sterility increases as we advance westward. The hills which form the outskirts of the Ozark mountains subside into an undulating surface of great extent, with nothing to limit the view, or vary the prospect, but here and there a hill, a knob, or insulated tract of table land. These table lands increase in number, and diminish in size, as we approach the Rocky Mountains, and exhibit a very remarkable appearance. They rise six or eight hundred feet above the common level. Their sides consist sometimes of gentle acclivities, but often of

rugged and perpendicular cliffs, which forbid all access to their summits. They are composed of secondary sandstone, alternating with breccia or puddingstone. The surface between these elevations is sometimes covered with water-worn pebbles, and gravel formed of the *debris* of granite, gneiss, and quartz rocks; but more generally we see a wide waste of sand, with patches of vegetable mould, continually diminishing in number, till the Rocky Mountains rise to our view towering abruptly from the plains, mingling their snow-clad summits with the clouds, and exposing at their feet a frightful wilderness of rocks, stones, and sand, scarcely chequered by a single trace of vegetation. In this desert solitude the Platte, Kansas, and other rivers, often spread out to a breadth of one or two miles, and in summer lose their waters almost entirely. Though tracts of good land do occur, they are rare; and the scarcity of wood and water form obstacles to settling, which even American perseverance will scarcely surmount. With some few exceptions, the tract of country extending 400 miles eastward from the Rocky Mountains, may be pronounced "unfit for cultivation, and, of course, uninhabitable by a people depending on agriculture for subsistence." It should be observed, however, that the numerous streams which traverse this district, give it a character quite distinct from that of the African deserts. At certain seasons of the year, these streams are navigable for boats almost to their sources; at other times, the vegetation which exists along their banks supplies the means of sustenance to animals; and at all times water may be found in some of them sufficient for the wants of travellers. These deserts, therefore, though scarcely habitable themselves, are not such formidable barriers to commercial intercourse between people situated on their opposite sides as those of Africa and Asia.^a

The Rocky Mountains rise abruptly on the eastern side, from a plain which is supposed to be elevated about 3000 feet above the sea. They consist of ridges and peaks, the highest of which are covered with perpetual snow, and rise from 4000 to 8000 feet above their base, or from 7000 to 11,000 feet above the sea. They are rugged and broken, and though generally rather barren, they exhibit a scattering growth of scrabby pines, oak, cedar, and furze, and inclose some fertile valleys.

The *Western Territory* includes the country watered by the Columbia and its numerous branches. The tract along the Rocky Mountains is a high level plain, in all parts very fertile, and in many covered with a growth of long-leaved pine. The rest of the country is nearly of the same description; but the soil, in the district nearest the coast, is subject to excessive rains. The climate, however, is remarkably mild, and the natural timber is fine. A fallen fir tree in the Columbia valley was found by Lewis and Clarke to be 318 feet in length, though its diameter was only three feet. The Columbia is navigable for sloops as high as the tide water reaches, 183 miles. At the mouth of the river the United States have established a colony,^b which will probably soon be connected with the settlements on the Missouri by a line of military posts. The Indian tribes, which are numerous in the Western Territory, have been supposed to include a population of 80,000 souls.^c

^a James's Expedition, III. 223—236.

^b This establishment, called Astoria, was founded by the American Fur Company at New-York.—P.

^c Morse, I. p. 675.

BOOK LXXXI

THE DESCRIPTION OF AMERICA CONTINUED

United States continued.—The Aborigines. Manners and Character of the various Tribes.

WE now leave the confines of civilization, and proceed to survey those tribes of Indians who roam over the vast region from the Alleghanies to the Pacific Ocean, in a state of savage independence, and who are evidently destined, at no distant day, to be supplanted by the continued encroachments of the whites, and probably to disappear entirely from a continent of which, three centuries ago, they held undisputed possession from sea to sea. The works of Major Pike, and of Lewis and Clarke, and of various other travellers, will be our authorities. Taking the former for our guide in the first place, we shall describe briefly the Indians of the Upper Mississippi.

The powerful nation of the Sioux is the terror of all the savage hordes, from the River Corbeau to the mouth of the Missouri. It is divided into several tribes. The *Minoa Kuntong*, or "People of the Lake," who occupy the country from the Prairie du Chien to the Prairie des Français, are subdivided into four parties, obeying four different chiefs. Of all the Sioux, they are the bravest and most civilized, and they alone make use of canoes. They build cabins with trunks of trees; but though they practise agriculture, and raise a small quantity of maize and beans, the wild oats, which grow spontaneously over nearly all the north-western parts of the continent, chiefly supply them with bread. They are generally provided with fire-arms. The *Waspingtons*, or "People of Leaves," wander in the country between the Prairie des Français and the River Saint Peter's. The *Sassitongs* hunt along the Mississippi from the River St. Peter's to the River Corbeau. The erratic band of the *Yanktongs* maintains its independence in the vast solitudes between the Red River and the Missouri, but partly mixed with the *Telons*, who are dispersed along both sides of the latter river, from the River Du Chien to the country of the Mahas and Minetaries. The bison supplies these tribes with food, clothes, dwellings, and saddles and bridles to their horses, of which they possess great numbers. The small band of the *Waschpecontes* hunts towards the sources of the River Des Moines.

The Sioux are the most warlike and independent of all the tribes in the territories of the United States. War is their delight. They understand the art of forming entrenchments of earth capable of protecting their wives and children from arrows and musket balls, when exposed to danger from the sudden incursions of an enemy. Traders may travel safely among these savages, if they avoid offending them in matters that touch their rude ideas of honour.

* These are rather pictorial representations of the objects described, than allegorical symbols, like the Egyptian hieroglyphics.—P.

On the other hand, no traveller loses their esteem by seeking vengeance for an injury he has received from one of their tribe. The articles they sell to the Americans are the skins of the tiger, deer, elk, beaver, otter, marten, the white, black, and gray fox, the musk rat, and racoon. Their guttural pronunciation, their prominent cheek bones, and their features generally, their manners and traditions, confirmed by the testimony of the neighbouring tribes, all indicate that they have emigrated from the north-western part of the continent. They write in hieroglyphics^a like the Mexicans.^b

The *Chippeways* inhabit the country on the west and south of Lake Superior, on Sand, Leech, Rainy, and Red Lakes, and towards the sources of the Chippeway, St. Croix, Red, Mississippi, and Corbeau Rivers. They are divided like the Sioux into several bands with distinct names. The Chippeways and Sioux carried on a ferocious contest with one another for two generations, till they were reconciled by Pike in 1805. The Chippeways have more gentleness and docility of character than the Sioux, but more coolness and resolution in battle. The Sioux are impetuous in their attacks; the Chippeways defend themselves with skill and address, taking advantage of the natural strength of their country, which is intersected by a multitude of lakes, rivers, and impassable marshes. The latter have, besides, the advantage of being all provided with fire-arms, while one half of the Sioux are armed only with arrows, which can do little execution in the woods. The Chippeways are immoderately addicted to the use of strong liquors, a vice in which they are encouraged by the traders, in order to obtain their furs on more advantageous terms. Among this tribe also, hieroglyphics cut in wood supply the place of written language.

Travellers describe with delight the fine features of the *Menominie*. Their physiognomy expresses at once gentleness and independence. They have a clearer complexion than the other indigenous tribes, large expressive eyes, fine teeth; they are well formed, and of middle stature, have much intelligence, and a patriarchal simplicity of manners. They dwell in spacious huts, formed with rush mats, like those of the Illinois. They repose upon the skins of bears and other animals killed in the chase. They drink the syrup of the maple. Though few in numbers, they are respected by all their neighbours, especially the Sioux and Chippeways. The whites consider them as friends and protectors. They live chiefly on the River Menomine, and at Green Bay in Lake Michigan, but hunt as far as the Mississippi. They speak a particular lan-

^b Pike's Travels.

guage, which the whites have never learned,^a but they all understand the Algonquin.^b

The *Winnebagoes*, who dwell on the Wisconsin, Rock, and Fox Rivers, speak the same language with the Ottoes of the River Platte, and, according to their own traditions, are the descendants of a nation who fled from Mexico to escape the oppression of the Spaniards. For 150 years they have lived under the protection of the Sioux, whom they profess to regard as brothers.

The *Ottogamies*, or *Foxes*, hunt from the river bearing their name to the Mississippi. They live in close alliance with the Sacs,^c and devote themselves to the culture of grain, beans, melons, but above all, maize, of which they are able to sell some hundred bushels annually. The *Sacs*, established upon the Mississippi above St. Louis, raise a considerable quantity of maize, beans, and melons. The *Ioways*, closely allied with the Sacs and Foxes, but less civilized and less depraved, cultivate a little maize, and push their hunting excursions even beyond the Missouri. They live on the Ioway and Desmoines Rivers.

Though the destruction of game in the civilized parts of the United States has induced the Indians gradually to retire farther back into the wilderness, there are still some small parties of them that live among the whites. Of these we shall speak very briefly.

A small remnant of the celebrated *Oneidas* live near the lake of that name in the state of New-York, where they have embraced Christianity, and adopted the industrious habits of American citizens. A still smaller party of the *Tuscaroras* reside near Lewistown, and have assumed the character of farmers. The *Senecas* and *Cornplanters* live on the Niagara, and at the head waters of the Alleghany River. Prior to the late war (1814) the whole number of persons belonging to the Six Nations, once so powerful, was estimated at 6330.^d About 150 of the *Narragansets* reside at Charlestown, in Rhode Island, where they have a school, which is supported by the Missionary Society of Boston.^e The Virginia Indians, once so numerous, are now reduced to thirty or forty individuals of the Nottaways, and about as many of the Pamunkeys, who reside in the south-eastern part of the state.^f

The most considerable Indian nations inhabiting the states east of the Mississippi, reside in the country south of the Ohio. The *Creeks*, or *Muskogees*, including the *Seminoles*,^g occupy districts in Georgia and Alabama. Their number in 1814 was estimated at 20,060, of whom 5000 were warriors. A part of them have made some progress in agriculture and the mechanic arts. They have cultivated fields, gardens, inclosures, herds of cattle, and different kinds of domestic manufactures.

The *Choctaws*, who inhabit the country between the Yazoo and Tombigbee Rivers,^h boasted some years since of 4041 warriors in forty-three villages, but are now re-

duced to less than one half of this number. The scarcity of game, and the example of the whites, has induced them to adopt agricultural habits. They have herds of swine and horned cattle, and manufacture their own clothing. The *Chiskasaws*, including about 1000 warriors, live in the neighbourhood of the Choctaws, and like them, cultivate corn, cotton, potatoes, and beet root, and have herds of cattle, sheep, and swine. Some of the best inns on the public road are kept by persons of this nation, and their zeal for improvement has led them to establish a school at their own expense.

The *Cherokees*, inhabiting the country about the mutual boundaries of Georgia, Alabama, and Tennessee, are perhaps farther advanced in civilization than any other of the Indian tribes. They inhabit the northern parts of Georgia and Alabama, and the southern borders of Tennessee. The tribe consisted in 1810 of 12,400 persons, including 583 slaves, and what is still more surprising, 341 white persons, of whom one third had Indian wives. The Cherokees have made considerable progress in husbandry and domestic manufactures. They raise cattle for the market, which multiply prodigiously in their fertile country. In 1810 they had 19,500 head of cattle, 6100 horses, 19,600 hogs, 1037 sheep, about 500 ploughs, 30 wagons, 1600 spinning wheels, 467 looms, 13 grist mills, 3 saw mills, 3 saltpetre works, 1 powder mill, 49 smiths. Like the whites, they commit the heavier labours of agriculture to their negro slaves. Men, women, and children, are addicted to the use of the bath, and are remarkably clean and neat in their persons. A young Cherokee woman refused an American suitor on the ground that he was not clean in his appearance. The practice of ablution, though formerly a religious rite, is now valued merely for its salutary effects on the body. A Missionary school was planted among this people in 1804, at which some hundreds of young Cherokees have received the rudiments of education. The *Catawba* tribe, who live near the Cherokees, mustered 1500 warriors when the whites first settled in their neighbourhood, but have now only 60.ⁱ In Louisiana are the *Houmas*, *Opelousas*, *Atakapas*, *Tunicas*, *Conchatas*, *Alabamas*, *Apalaches*, *Pacamas*, *Pascagoulas*, and other tribes, who were formerly numerous, but are now reduced to a feeble remnant, some of them not mustering more than a dozen of warriors, and few of them having more than 100.

Of the Indians who live in the country watered by the Missouri, the *Osages* are one of the most powerful nations. They live chiefly near the Osage River, and when Pike visited them, had 1252 warriors, and a total population of 4019. They have made some progress in agriculture: they cultivate maize, beans, and pumpkins, and have a fine race of horses and mules. The *Kansas*, who live on the river of the same name, have 465 warriors according to Pike, and raise corn, beans, and pumpkins. The *Ottos*

^a The language has been learned by the whites, but rarely. The whites carry on an intercourse with them in the Chippeway language.—P.

^b Chippeway.

^c Sauts.

^d The remains of the Six Nations in New-York, including the Stockbridge and Brotherton Indians, and a few of the Delawares, whom they have incorporated with them, is 4834, on fourteen reservations, containing more than 260,000 acres. The Mohawks and Cayugas emigrated into Canada after the American war, leaving only a few individuals in the United States. The number of the Six Nations in Canada has been estimated at 2250. They chiefly reside on Grand River, W. of York. There are 57 of the Mohawks settled on Sandusky River, Ohio. There are two villages of Senecas, containing a population of 550, in the W. part of Ohio.—*Morse's Report*.—P.

^e The Narragansets are about 420 in number, but few of them of pure Indian blood. The Society for Propagating the Gospel in North America, supports a missionary, and two schools, a part of the year, among them. They live by agriculture and fishing.—P.

^f There are about 50 individuals remaining of the Nottaways, Pamunkeys, and Mattaponies. They live on the W. side of Nottaway River, in Southampton County, Virginia.—*Morse's Report*, p. 341.—P.

^g The Seminoles, or Lower Creeks, live in Florida. They have been estimated at about 5000.—P.

^h The north part of the Choctaw territory extends to the Mississippi.—P.

ⁱ Present population 450.—*Morse's Report*.

on the Platte River, are reduced to 60 warriors; and of the *Missouris*, who once counted their warriors by thousands, only a remnant of thirty families exist. The *Mahas*,^a 800 in number, who live on the Maha Creek, lost two thirds of their population by the small-pox in 1802. The *Pawnees*, or *Panis*, divided into four tribes, include 1993 warriors, and 6223 souls. Higher up live the *Ricaras*, 3000 in number; the *Mandans*, 2000; the *Minetaries*, 2000; and the *Quehatsas*, 3560, who have their residence near the springs of the Yellowstone River, at the Rocky Mountains. Farther up are the *Snake* Indians, in number 8200; the *Chiens*, 1250; the *Towas*, 1400; the *Kites* and *Kiwas*, 3000; the *Utahs*, and *Tetaus*, 7000; the *Mamekas* and *Apeches*, 15,000; the *Kaninaviesch*, *Castahamas*, and *Katahas*, 6500; and the *Blackfeet Indians*, 5000. Most of these tribes wander between the sources of the Missouri and its branches, and the frontiers of Mexico. They live chiefly by hunting, and are partially supplied with fire-arms; but many of them raise maize, beans, melons, pumpkins, and some tobacco. The tribes situated near the Missouri carry on a considerable trade with the whites, exchanging their peltries and skins for cloth, iron articles, powder, and fire-arms.

There is a great diversity of language among these numerous tribes, and they are farther distinguished by their habits, manners, superstitions, and their implacable rancour and hostility against each other. In one respect, however, there is a general resemblance; like the Arabs, they wander from place to place over extensive tracts of country, which they claim by traditionary title or conquest. Some few of them have huts or permanent lodges; but these they often abandon to hunt the buffalo, the flesh of which affords them nourishment, as the skin does clothing. This rude and independent mode of life has so many attractions, that it is with difficulty renounced by those who have experienced the advantages of civilization. The complexion of all the Indians is of a copper colour, but lighter in some than in others. In general, their hair and eyes are black. The warriors are well proportioned, strong, and active, and have an air of dignity in their looks and gestures. Many of their young females have fine eyes, teeth, and hair, and regular features, with an agreeable expression; but owing to their wandering and laborious life, the growth of the body is checked before the usual period of maturity. Hence they are generally of low stature, and ungraceful in form, with high cheek bones, projecting eyes, and flat bosoms. In the mountainous districts, however, the women are less emaciated, of a lighter complexion, and more interesting. Several of the nations live almost naked; but of those who are clothed, the principal articles of dress are three. A buffalo robe is attached to the shoulders, and hangs down loosely; a piece of skin, in the form of an apron, covers the waist or middle; and a sort of rudely formed boots, called mocassins, are worn on the legs. The women wear a cloak like that of the men, and under it a petticoat, or robe of the skin of the elk or antelope, fastened to the waist by a girdle, and reaching to the knees. The tribes, however, who trade with the whites, often substitute coverings of woollen cloth, linen, or blankets, for skins, or wear them under their skin robes in cold weather. The chiefs fasten feathers to their heads, and distinguish themselves, especially on days of state and ceremony, by

showy vestments, and by various rude ornaments. Blue beads are worn on the neck, legs, and arms, and are highly valued by both sexes. They paint their faces red and black, which they consider highly ornamental. They paint themselves also when they go to war; but the method they make use of on this occasion differs from that which they employ merely for decoration. Some tribes bore their noses, and wear in them pendants of different sorts; and others slit their ears, and load the rim with brass wire, which drags it down almost to the shoulder.

The cabins of the Indians, though rudely constructed, are warm and comfortable. Those of the Sioux, of a circular form, and thirty or forty feet in diameter, are constructed of forked pieces of timber, six feet in length, placed in the ground, at small distances from each other, in a vertical position, supported by others in a slanting direction. Four taller beams placed in the middle serve as a support to the poles or rafters, which are covered with willow branches, interwoven with grass, and overlaid with grass or clay. The door, or entrance, is four feet wide, before which there is a sort of portico. A hole in the middle of the roof serves for the escape of smoke, and the admission of light. The beds and seats are formed of the skins of different animals. A platform raised three feet from the floor, and covered with the hairy skin of a bear, is reserved for the reception of guests. In other cases, the lodge is formed by a few poles meeting in the figure of a roof, and covered with rush mats or buffalo hides. It is taken asunder when they shift their residence, and carried by dogs to their new abode. The village consisting of a number of such huts irregularly disposed, is enclosed by a palisade of wood; but the Ricaras, and some other tribes, formerly protected their villages by a wall four feet high.

It may be remarked, that the Indians to the eastward of the Mississippi seldom make use of horses in travelling, hunting, or in war; while those to the westward of that river, employ them on all these occasions. This difference of custom is owing chiefly to the different state of the country, which, on the western side, consists of extensive open plains, while the eastern is broken, hilly, and covered with forests.

All the different nations are under the government of a chief and council, who are generally elected to office on account of their military talents, wisdom, and experience, though much art and dissimulation is sometimes employed to gain suffrages. These appoint municipal officers, who take charge of the peace of the villages. Their authority, however, is but limited: for as every Indian has a high opinion of his own consequence, and is extremely tenacious of his liberty, he instantly rejects with scorn every injunction that has the appearance of a command.

The object of government among them is rather foreign than domestic, for their attention seems more to be employed in preserving such a union among the members of their tribe as will enable them to watch the motions of their enemies, and to act against them with concert and vigour, than to maintain interior order by any public regulations. If a scheme that appears to be of service to the community is proposed by the chief, every one is at liberty to choose whether he will assist in carrying it on; for they have no compulsory laws that lay them under any restrictions. If

^a O'Mahas.

violence is committed, or blood is shed, the right of revenging these misdemeanors is left to the family of the injured; the chiefs assume neither the power of inflicting nor of moderating the punishment. In their councils every affair of consequence is debated; and no enterprise of the least moment undertaken, unless it meets with the general approbation of the chiefs. They commonly assemble in a hut or tent appropriated to this purpose, and being seated in a circle on the ground, the eldest chief rises and makes a speech; when he has concluded, another gets up; and thus they all speak, if necessary, by turns. On this occasion their language is nervous, and their manner of expression emphatical. Their style is adorned with images, comparisons, and strong metaphors, and is equal in allegories to that of any of the eastern nations. In all their set speeches they express themselves with much vehemence, but in common discourse according to our usual method of speech. The young men are suffered to be present at the councils, though they are not allowed to make a speech till they are regularly admitted; they, however, listen with great attention, and to show that they both understand and approve of the resolutions taken by the assembled chiefs, they frequently exclaim, "That is right," "That is good."^a

The women are condemned to all the drudgery of domestic life, and the labour of cultivating maize and esculent roots devolves upon them. They prepare and tan the skins of animals for clothing; join in the chase, and on their shoulders carry their children, with large pieces of the flesh of the buffalo. The wife of the chief, Little Raven, brought at once sixty pounds weight of dried meat, a pot of meal, and a robe, as a present to Captains Lewis and Clarke. Though marriage be founded on mutual affection, and is made with the consent of the father of the girl, the moment she becomes a wife her slavish obedience commences. She is considered as the property of her husband, who, for different offences, especially in case of elopement, may put her to death with impunity. One of the wives of a Minitaree chief eloped with her lover, by whom she was soon abandoned, and was afterwards obliged to seek protection in her father's house, where the chief repaired with a mind bent on deep revenge. The old men were smoking round the fire, in which he joined without seeming to recognize the unfortunate woman, till at the moment of departure he seized her by the hair, and dragging her near the door of the lodge, with one stroke of the tomahawk took away her life. He then suddenly departed, crying out, that, if revenge were sought, he was always to be found at his lodge. Yet this same chief is represented to have offered his wife or daughter to the embraces of a stranger. For an old tobacco-box, the first chief of the Mandan tribe lent his daughter to one of the exploring party. The Sioux husbands have been known to offer both their wives and daughters.

All the Missouri Indians believe in the existence of good and evil spirits, in sorceries, dreams, charms, and prognostications. Every extraordinary occurrence of life is ascribed to a supernatural cause. The residence of the agents of the good spirit is in the air; those of the evil genius reside on the earth. A chief of the Toways, who accompanied Major Stoddard to the seat of the American government, in 1805, had a curious shell in which he carried his tobacco. In passing through Kentucky, a citi-

zen expressed a desire for this article. The chief presented it to him, turned round, and observed to his companions, that the circumstance of his having parted with his tobacco shell, reminded him that he must shortly die; and such was the power of his imagination, that in the course of a few days he expired.

In every band or nation there is a select number who are styled the warriors, and who are always ready to act either offensively or defensively, as occasion requires. These are well armed, bearing the weapons commonly in use among them, which vary according to the situation of their countries. Such as have an intercourse with the Europeans make use of tomahawks, knives, and fire-arms; but those who have not an opportunity of purchasing these kinds of weapons, use bows and arrows, and also the Casse Tête or War-Club. The extension of empire is seldom a motive with these people to invade, and to commit depredations on the territories of those who happen to dwell near them. To secure the rights of hunting within particular limits, to maintain the liberty of passing through their accustomed tracks, and to guard those lands which they consider from a long tenure as their own, against any infringement, are the general causes of those dissensions that so often break out between the Indian nations, and which are carried on with so much animosity. The manner in which the Indians declare war against each other, is by sending a slave with a hatchet, the handle of which is painted red, to the nation which they intend to break with; and the messenger, notwithstanding the danger to which he is exposed from the sudden fury of those whom he thus sets at defiance, executes his commission with great fidelity.

The Indians seldom take the field in large bodies, as such numbers would require a greater degree of industry to provide for their subsistence, during their tedious marches through dreary forests, or long voyages over lakes and rivers, than they would care to bestow. Their armies are never encumbered with baggage or military stores. Each warrior, besides his weapons, carries with him only a mat, and whilst at a distance from the frontiers of the enemy, supports himself with the game he kills, or the fish he catches. After they have entered the enemy's country, no people can be more cautious and circumspect; fires are no longer lighted, no more shouting is heard, nor the game any longer pursued. They are not even permitted to speak; but must convey whatever they have to impart to each other by signs and motions. They now proceed wholly by stratagem and ambuscade. Having discovered their enemies, they send to reconnoitre them; and a council is immediately held, during which they speak only in whispers, to consider of the intelligence imparted by those who were sent out. The attack is generally made just before day-break, at which period they suppose their foes to be in their soundest sleep. Throughout the whole of the preceding night they will lie flat upon their faces, without stirring; and make their approaches in the same posture, creeping upon their hands and feet, till they are got within bowshot of those they have destined to destruction. On a signal given by the chief warrior, to which the whole body makes answer by the most hideous yells, they all start up, and discharging their arrows in the same instant, without giving their adversaries time to recover from the confusion into which they are thrown, pour in upon them with their war-clubs or tomahawks. When the Indians

^a Carver's Travels, chap. V.

succeed in their silent approaches, and are able to force the camp which they attack, a scene of horror, that exceeds description, ensues. The savage fierceness of the conquerors, and the desperation of the conquered, who well know what they have to expect should they fall alive into the hands of the assailants, occasion the most extraordinary exertions on both sides. The figure of the combatants, all besmeared with black and red paint, and covered with the blood of the slain, their horrid yells, and ungovernable fury, are not to be conceived by those who have never crossed the Atlantic.

When they have overcome an enemy, and victory is no longer doubtful, the conquerors first dispatch all such as they think they shall not be able to carry off without great trouble, and then endeavour to take as many prisoners as possible; after this they return to scalp those who are either dead or too much wounded to be taken with them. Having completed their purposes, and made as much havoc as possible, they immediately retire towards their own country with the spoil they have acquired, for fear of being pursued. The prisoners destined to death are soon led to the place of execution, which is generally in the centre of the camp or village; where, being stript, and every part of their bodies blackened, the skin of a crow or raven is fixed on their heads. They are then bound to a stake, with faggots heaped around them, and obliged, for the last time, to sing their death song. The warriors, for such it is only who commonly suffer this punishment, now recount with an audible voice all the brave actions they have performed, and pride themselves in the number of enemies they have killed. In this rehearsal they spare not even their tormentors, but strive, by every provoking tale they can invent, to irritate and insult them. Sometimes this has the desired effect, and the sufferers are dispatched sooner than they otherwise would have been. There are many other methods which the Indians make use of to put their prisoners to death, but these are only occasional; that of burning is most generally used. If any men are spared, they are commonly given to the widows that have lost their husbands by the hand of the enemy, should there be any such, to whom, if they happen to prove agreeable, they are soon married. But should the dame be otherwise engaged, the life of him who falls to her lot is in great danger; especially if she fancies that her late husband wants a slave in the country of spirits to which he is gone. The women are usually distributed to the men, from whom they do not fail of meeting with a favourable reception. The boys and girls are taken into the families of such as have need of them, and are considered as slaves; and it is not uncommon that they are sold in the same capacity to the European traders that come among them.^a

The Indians are extremely circumspect and deliberate in every word and action; there is nothing that hurries them into any intemperate warmth, but that inveteracy to their enemies, which is rooted in every Indian heart, and never can be eradicated. In all other instances they are cool, and remarkably cautious, taking care not to betray, on any account whatever, their emotions. If an Indian has discovered that a friend is in danger of being intercepted and cut off, by one to whom he has rendered himself obnoxious, he does not inform him in plain and explicit terms

of the danger he runs by pursuing the track near which his enemy lies in wait for him, but he first coolly asks him which way he is going that day; and having received his answer, with the same indifference tells him, that he has been informed that a dog lies near the spot, which might probably do him a mischief. This hint proves sufficient; and his friend avoids the danger with as much caution as if every design and motion of his enemy had been pointed out to him. This apathy often shows itself on occasions that would call forth all the fervour of a susceptible heart. If an Indian has been absent from his family and friends many months, either on a war or hunting party, when his wife or children meet him at some distance from his habitation, instead of the affectionate sensations that would naturally arise in the breast of more refined beings, and be productive of mutual congratulations, he continues his course without paying the least attention to those who surround him, till he arrives at his home. He there sits down, and with the same unconcern as if he had not been absent a day, smokes his pipe; those of his acquaintance, who have followed him, do the same; and perhaps it is several hours before he relates to them the incidents which have befallen him during his absence, though perhaps he has left a father, brother, or son, on the field, whose loss he ought to have lamented, or has been unsuccessful in the undertaking that called him from his home. If you tell an Indian that his children have greatly signalized themselves against an enemy, have taken many scalps, and brought home many prisoners, he does not appear to feel any extraordinary pleasure on the occasion; his answer generally is, "it is well," and he makes very little further inquiry about it. On the contrary, if you inform him that his children are slain or taken prisoners, he makes no complaints; he only replies, "It does not signify," and probably, for some time at least, asks not how it happened.^b

We mentioned before, (page 211,) that the number of Indians in the territories of the United States, was estimated at 457,000. The following statement, however, is rather more recent, and is also obtained from Dr. Morse.^c

In New-England	2247
New-York	5184
Ohio	2407
Michigan and North-West Territories	28,380
Illinois and Indiana	17,006
Southern states east of Mississippi	65,122
West of Mississippi and north of Missouri	33,150
Between Missouri and Red River	101,070
Between Red River and Rio del Norte	45,370
West of Rocky Mountains	171,200
	<hr/>
	471,136

The proportion which the warriors bear to the whole population varies, but is on an average one to five. "In Indian countries, where fish constitutes an article of food, the number in each family is about six; in other parts, where this article is wanting, it is about five."

As no material change has taken place in the mode of living of the Indians beyond the Mississippi and in the western territories, while the acquisition of fire-arms has perhaps rather increased their resources for subsistence, we have reason to believe that the aboriginal population is nearly as dense in these countries as it was in the whole of North America before the English settlements commenced. Hence it is probable that when the Indians

^a Carver's Travels, chap. IX.

^b *Ibid.* chap. III.

^c Hodgson's Letters from North America, vol. II. p. 394.

were lords of the continent from sea to sea, their number in the two millions of square miles, now claimed by the United States, did not exceed one million of souls, or was scarcely greater than that of the inhabitants of the three small states of Massachusetts, Rhode Island, and Connecticut, which occupy only the one hundred and sixtieth part of the surface. Even admitting that the use of spirits has deteriorated their habits, and thinned their numbers, we cannot suppose that the Indian population was ever more than twice as dense as at present, or that it exceeded one person for each square mile of surface. Now, in highly civilized countries, like France and England, the population is

VOL. II.—NCS. 77 & 78.

2G

at the rate of 150 or 200 persons to the square mile. It may safely be affirmed, therefore, that the same extent of land from which one Indian family derives a precarious and wretched subsistence, would support 150 families of civilized men in plenty and comfort. But most of the Indian tribes raise melons, beans, and maize; and were we to take the case of a people who lived entirely by hunting, the disproportion would be still greater. If God created the earth for the sustenance of mankind, this single consideration decides the question as to the sacredness of the Indian title to the lands which they roam over but do not in any reasonable sense occupy.

BOOK LXXXII.

THE DESCRIPTION OF AMERICA CONTINUED.

United States continued.—Manufactures, Commerce, Government, Religion, Manners, and Literature.

THE cheapness of land, and the great profits which farming affords, check the growth of manufactures in the United States. Linen, woollen, and cotton articles for domestic use, however, are made very generally in the farmer's houses, and fabrics of a finer kind, including fancy and ornamental articles, are now manufactured in extensive works in Pennsylvania, New-York, Rhode-Island, Connecticut, and Massachusetts. Cabinet ware, and the coarser species of iron work, are made in high perfection; and in ship-building, the construction of wooden bridges, and mill machinery, the Americans are probably superior to any nation in Europe. If not the actual inventors of steam navigation, they have the credit of giving the practical use of the invention to the world. According to the official returns in 1810, the whole value of the manufactures that year was 127,694,602 dollars, but allowing for articles omitted or under estimated, the true amount was computed to be 172,700,000 dollars. Supposing the growth of manufactures to have kept pace with that of the population, the amount, in 1823, would be about 240,000,000 of dollars, (52,000,000*l.* sterling.)

The commerce of the United States is second in extent only to that of Britain, and much greater than that of any state with an equal population. The principal articles of domestic growth or manufacture exported, are cotton, tobacco, wheat, and flour, Indian corn, lumber and naval stores, ashes, fish, beef, pork, rice, and flax seed. The imports consist chiefly of woollens, cottons, linens, silks, iron ware, coffee, sugar, spirits, wines. The states that have the greatest quantity of shipping are Massachusetts, New-York, Maine, Maryland, and Pennsylvania. A considerable proportion of the tonnage belonging to the northern states is employed in carrying away the produce of the southern, which have comparatively a small number of ships and mariners, though the cotton and tobacco raised in these states furnish fully one half of the exports of the Union. The vast number of navigable rivers in the United States, afford extraordinary facilities for communication by water; and hence their internal commerce, compared with that of other countries, is still greater than their foreign trade. The admirable invention of steam boats has had a most beneficial effect in North America in quickening and improving river navigation.

The Americans have made great and spirited exertions to improve their inland water communication by the con-

struction of canals. Besides the Middlesex canal, in Massachusetts, thirty-one miles long, the Lake Champlain, the Dismal Swamp, the Santee and Cooper River canals, each twenty-two miles long, and several of smaller extent, a canal has been formed to connect the Hudson with Lake Erie. It is four feet deep, forty feet wide at top, and twenty-eight at bottom: it has eighty-one locks, and an aggregate rise and fall of 654 feet; it is 362 miles long, and is estimated to cost about five millions of dollars. This great work is to be completed in 1824,^a and has been executed entirely at the expense of the single state of New-York, and within the short period of seven years.^b

Banks are extremely numerous in the United States; but the system of banking is bad. Of 400 of these establishments which existed in 1818, a great proportion had little or no real capital; and were merely a sort of gambling speculations, got up by knots of adventurers, and supported for a time by local influence or artifice, but ultimately falling down, and spreading distress and ruin among the industrious classes. Two thirds or more of these banks stopped payment in the four years ending 1820, and the circulating medium which, in 1815, was estimated at 110 millions of dollars, was reduced by these failures to 45 millions in 1819. The American banks generally issue notes for so small a sum as one dollar, and some of them for fractional parts of that coin. To remedy the disorders arising from the unsound state of the currency, the national bank was instituted by Congress in 1816, with a capital of 35,000,000 of dollars, divided into shares of 100 dollars each. Some peculiar privileges were bestowed on this bank, which had branches established in the principal cities of the Union; but the value of its stock has fluctuated much; and it has neither prospered nor supplied an efficient correction to the evils of the currency.^c

By an act of Congress, passed in 1792, the only legal tender in the United States is the dollar and its fractional parts. The dollar weighs 416 grains; and four dollars and forty-four cents are declared equal to a pound sterling. The national silver coins consist of the dollar, half, and quarter dollar;^d the first being equal to 100, the second to fifty, and the third to twenty-five cents. The gold coins are, the eagle, equal to ten dollars, and the half and quarter eagle, equal respectively to five and two and a half dollars. The gold coins of the United States are of the same quality with those of Britain and Portugal, the intrinsic value being at the rate of 100 cents for twenty-seven grains. The foot, yard, and acre, the gallon, pound avoirdupois,

^a It was completed in the autumn of 1825.

^b Duncan's Travels, I. 324.

^c Flint's Letters, No. XVI. and XVII. Carey's Political Economy, p. 271. 425. Warden, III. 442.

^d Also the dime, or ten cent piece, and the half dime.

and pound troy, and the measures and weights of the United States universally, with some trifling local exceptions, are the same with those of England.^a

The governments of the United States, local and general, grew naturally out of the old colonial charters, which were founded on the constitutional law of England. The principles, therefore, of those harmonious and beautiful republican institutions of which America is justly proud, are the patrimonial gift of England; but it cannot be denied that the wisdom of American statesmen, and the free spirit of the people, have developed these principles more fully, raised those institutions to a degree of perfection hitherto unexampled, and realized a system of polity more economical, orderly, and rational, and more conducive to human improvement, to national prosperity and happiness, than any that has yet existed in the world. It affords indeed an encouraging view of the future fortunes of mankind, to observe how much more surely men are conducted to sound conclusions on all questions of practical importance, by the general progress of knowledge, and the instinct of self-interest operating in society at large, than by the speculations of the philosopher. Plato, Sir Thomas More, Harrington, and Hume, have all exerted their ingenuity in framing the plan of a perfect commonwealth, in which the fullest measure of liberty should be conjoined with order, justice, good government, and pure morality in private life. But what they looked upon almost as an ideal good, rather to be desired than hoped for, and what they merely endeavoured to approach to, by an apparatus the most refined and complicated, by institutions calculated to force nature, and by impracticable schemes of moral discipline, has been realized to an extent far beyond their hopes, by mechanism infinitely more simple and natural than what they proposed, and infinitely more certain and constant in its operation.

The legislative power in the United States is separated into two branches, and the government is therefore twofold. To the state governments is committed that branch which relates to the regulation of internal concerns. These bodies make and alter the laws which regard property and private rights, regulate the police, appoint the judges and civil officers, impose taxes for state purposes, and exercise all other rights and powers not vested in the federal government by positive enactment. To the federal government belongs the power of making peace and war with foreign nations, raising and supporting an army and navy, fixing the organization of the militia, imposing taxes for the common defence or benefit of the union, borrowing money, coining money, and fixing the standard of weights and measures, establishing post offices and post roads, granting patents for inventions, and exclusive copyrights to authors, regulating commerce with foreign nations, establishing uniform bankrupt laws, and a uniform rule of naturalization, and lastly, the federal tribunals judge of felonies and piracies committed on the high seas, of offences against the law of nations, and of questions between the citizens of different states. It is remarkable that though the powers of the federal and local governments necessarily interfere in some points, it is very rare that any contest or collision has arisen out of this circumstance. The foundation of this harmony obviously is, that both Congress and the state legislatures are merely the organs of the same uni-

versal interest—that of the people, and have no independent existence. Were the power in both cases in the hands of oligarchies, who held it in despite of the people, and for their private emolument, there would be quarrels and contests in abundance.

The old division of governments into monarchies, aristocracies, and democracies, though not altogether unfounded, is of very little use, and should be laid aside. The radical distinction among governments, is between those which are conducted by men who derive their power from the people, and are responsible to them; and those which are conducted by Juntos, less or more numerous, over whom the people have no direct control. Whether the power in the latter case is exercised by the king and the chiefs of the army, as in Prussia, or by a club of nobles, as formerly in Venice, or by a king and packed chambers, as in France, may make some difference in the temper of the administration, but will make none in the essential character of the government. The former deserve the name of *national* governments; the latter, for want of a better term, may be called *oligarchical*. If we judge of the American system of government according to the principles of this classification, we shall perceive that it is purely a *national* government, and stands totally distinct from every other which has hitherto existed.

In the old governments of continental Europe, the king, whose authority is self-existent, and who, according to the usual mode of speaking, is responsible to God alone for his actions, is the sole fountain of power. From him judges, military officers, ministers of religion, teachers of youth, magistrates, and police officers of all classes, down to the petty constable, derive their authority, and to him alone they are accountable for their conduct. The people confer no office, and exercise no power, but live in a state of perpetual pupillage and dependence.

In the United States, on the contrary, the sovereignty resides not figuratively, but really, in the mass of the people. From them all power emanates, and to them the highest functionary as well as the lowest feels that he is amenable for his acts. The humblest individual assists by delegation in forming the laws under which he lives, disposes by his vote of the highest office in the state, and may obtain it himself if he can gain the confidence of his fellow-citizens. The people at large are daily in the exercise of political functions, and every one who holds a place of trust, derives his authority either directly from popular suffrage, or from persons who owe their power to the people's choice, and are responsible to them for the use they make of it. Something approaching to this, in a distant degree, may be found in the British constitution; but it may be safely said, that the American government is the first which has ever been fairly bottomed on the broad principle of the sovereignty of the people.

In the earlier constitutions of several of the states, the right of suffrage was confined to persons possessing freeholds, or some small property; but experience seems to have decided in favour of a broader principle. In the new states the right of suffrage may be described as universal, being extended to all who pay taxes (slaves excepted); and in the amended constitutions of most of the old states, the same rule has been adopted. The mode of voting at elections is generally by ballot.

The Federal government of the United States consists of a President, a Senate, and a House of Representatives

^a Warden, III. 439.

The President is chosen for four years, by delegates elected for this purpose by the people, and equal in number for each state, to the members it sends to Congress. The Vice-President is elected in the same manner, and for the same period; but both are generally re-elected for four years more, and so serve eight years. The president is commander-in-chief of the army and navy, and of the militia when in active service. He grants reprieves and pardons for offences against the United States, except in cases of impeachment. With the advice and concurrence of the Senate, he makes treaties, nominates ambassadors, consuls, judges: and he appoints several other officers by his own authority. He must be a native born citizen, not under thirty-five years of age, and he receives a salary of 25,000 dollars (5500*l.*) per annum.

The Senate consists of forty-eight members, namely, two for each state, who are chosen not by the people, but by the legislatures of the several states, and hold their office for six years, one third of the members being removed every two years. A senator must be thirty years of age, an inhabitant of the state for which he is chosen, and he must have been a citizen of the United States for nine years.

The House of Representatives consists now of 212 members, (1824,) who are chosen for two years, by the persons who elect the corresponding branches of the state legislatures, that is, with some few exceptions, by the mass of the adult population. The representatives are distributed among the states, in the proportion of one for every 42,000 inhabitants, excluding the Indians and two fifths of the people of colour. Even free persons of colour, however, have no vote, except in one or two states.^a A representative must be twenty-five years of age, an inhabitant of the state for which he is chosen, and he must have been a citizen of the United States for seven years. Senators and representatives receive an allowance of eight dollars per day for the time they attend the session of Congress, and eight dollars of travelling charges, for every twenty miles they have to travel in going and returning. Members of Congress take an oath to support the constitution, but no religious test is required from them, or any person holding office under the Federal government. Senators and representatives vacate their places if they accept of an office under government, and are not re-eligible while they hold it.

The forms of business in Congress are chiefly borrowed from those of the British parliament. Bills are read three times, and in a certain stage sent to committees; but what is deemed an improvement, eight standing committees^b for commerce, finance, foreign affairs, &c. are appointed in the House of Representatives, at the commencement of each session. All money bills must originate in the House of Representatives, a regulation which had its birth in circumstances which have long ceased to exist, and may now be pronounced ridiculous, even in England. A bill, after having passed both houses, is submitted to the president. If he sign it, it has the force of law forthwith. If he disapprove of it, he returns it to the house in which it originated, with his objections, for reconsideration; and after being reconsidered, if it pass both houses by a majority of two thirds, it becomes a law; otherwise it falls to the ground. This qualified *veto* has been sometimes exercised, and is probably of more real value, than an absolute *veto*,

like that of the king of Britain, which is practically a dead letter. From causes not difficult to trace, lawyers predominate in Congress far beyond their just proportion to the other classes of the population. To persons of this profession, especially those of short standing, both the pay and the honour of serving in Congress, are objects of some importance; and in a country where all are busy, such lawyers can absent themselves from their usual residence, with less inconvenience, than merchants or farmers. It is besides natural that the people should commit the charge of their public interests in preference to those persons who make the laws and constitution of the country their study, and who are supposed to be peculiarly qualified by their habits to assert the claims of those who employ them. To the predominance of this class of persons, and to other circumstances in the composition of Congress, we must also ascribe it, that the discussions on an interesting question, instead of being closed at a single sitting, as in the British parliament, are sometimes protracted for ten or twelve days. First, a person really responsible to his constituents, and receiving their pay, naturally considers himself in some measure as their agent or procurator, sent to Congress to watch over their interests, and conduct their business. Such a person gives closer attendance, and makes more regular exertions, than a man of family and fortune, who serves for honour, is responsible to nobody, and has no other stimulus to act than a vague feeling of public duty. Speeches for show, in acquittal as it were of the debt due to their constituents, and sometimes, perhaps, to the hinderance of business, will occasionally be made by representatives of the former description. In the second place, though Congress is not a stranger to party spirit, it is certain that the members are not so regularly enlisted into two adverse factions as in the British parliament, and that in the greater number of cases, the decision is more governed by argument and public feeling, and less by party connexion. Debating, therefore, partakes less of the nature of dialectical parade, and more of that of a real contest, in which victory may be presumed to rest with those who have the most imposing show of reason on their side. To this we must add, that though the House of Representatives is comparatively a small body, the usual attendance is fuller than in the House of Commons. Forty members (out of 658) constitute a *quorum* for conducting business in the latter, and 107 (out of 212) in the former. The composition of the House of Representatives in 1822 was as follows:—

Lawyers	97	Manufacturers	3
Farmers	54	Printers	2
Physicians	15	Clergymen	3
Merchants	13		
			187 ^c

New elections produce a change of members much more frequently than in the House of Commons. At the general election in 1821, the number of new members was ninety-two, but this was considered rather a greater change than usual.

The scale of pay for public officers in the United States is remarkably, perhaps injudiciously, moderate, as will be seen from the following table:—

	Dollars.	Pounds Sterling.
President	25,000	5500
Vice-President	5000	1100

^a See note, p. 220.

^b At present the number of standing committees is much greater.—P.

^c Niles' Register for 22d June, 1822. 187 was then the full number of members.

	Dollars.	Pounds Sterling.
Secretary of State	5000	1100
Secretary of the Treasury	5000	1100
Comptroller	3500	770
Auditor	3000	660
Treasurer	3000	660
Secretary of War	4500	990
Secretary of the Navy	4500	990
The three Commissioners of the Navy Board, each	3500	770
Postmaster-General	3000	660
Secretary of the Senate	3000	660
Secretary of the House of Representatives	3000	660
The Chief Justice of Supreme Court	4000	880
Six Associate Justices, each	3500	770
Attorney General	3000	660
Ambassadors to England, France, Russia, &c. seven in number, each	9000	2000
Secretaries of Legation, each	2000	440
Consuls in London, Paris, &c.	2000	440

The federal judiciary consists of a supreme court, which sits at Washington, and a district court in each state, in which one judge sits. In the supreme court, there is a chief judge and six associate judges, who hold their office during good behaviour. This court has *original* jurisdiction in all cases affecting ambassadors and consuls, and those in which a state is a party. It has *appellate* jurisdiction in all cases arising under the Federal constitution, in all admiralty cases, in controversies between two states, or two citizens of different states, and between a state, or the citizens thereof, and foreign states or subjects. The supreme court, deriving its authority from the constitution, exercises a power not enjoyed by the inferior courts. It has refused to give effect to, and by this means has virtually annulled, several acts of the state legislatures, and even of Congress itself, on the ground that these acts, by "impairing the obligation of contracts," violated a rule made binding by the constitution on the legislative bodies.^b The Federal judges are appointed by the executive, with the approbation of the Senate. In this and the other Federal courts, jurors and witnesses are allowed 1½ dollars a-day, and five cents per mile of travelling charges. The basis of the system of law in the United States is the *common* law of England, modified by acts of the general and state governments, which constitute the *written* law; and the works not only of Coke and Blackstone, but of the most recent English writers, and even the latest Term Reports, are familiarly cited in the courts.

The state governments are extremely similar to that of the Federal body in their composition. The legislature consists always of two branches, both of which are returned by the same electors; and these electors may be said to comprise the whole adult white population, the usual qualifications being citizenship, with one or two years residence, and payment of taxes. The only exceptions are the following:—In Vermont, the legislature consists of a House of Representatives only; in North Carolina, representatives are chosen by the whole resident free citizens, (who pay taxes,) but senators only by freeholders; in New-Jersey and in Virginia, the right of suffrage for both houses is limited to persons holding a small amount of landed property; in Maryland, the senators are chosen by delegates named for the purpose by the people.

In all the states, the period for which the representatives serve is either *one* or *two* years. The elections are *biennial* in South Carolina, Tennessee, Louisiana, Illinois, and Missouri, and *annual* in the other nineteen states.

^b Warden, chap. XL.

Down to 1818, the elections were semi-annual in Connecticut.

The shortest period for which the senators serve in any state is *one* year, and the longest *five*. In Maine, New-Hampshire, Massachussets, Rhode Island, Connecticut, New-Jersey, North Carolina, Georgia, the senators hold their office for *one* year only; in Ohio and Tennessee for *two* years; in Delaware, Mississippi, Alabama, Indiana, for *three* years; in New-York, Pennsylvania, Virginia, South Carolina, Kentucky, Louisiana, Illinois, Missouri, for *four* years; and in Maryland, for *five* years. Except in Maryland, when the senate of any state serves for more than one year, it is renewed by parts or divisions, one-third of the members going out annually when they serve for three years, and one fourth when they serve for four. In some cases, however, when the senators serve for four years, the renewal is by halves every two years.

No government, however perfect when first established, can continue good, unless its mechanism is such that it can adapt itself to the changes which take place in society. A scheme of legislation absolutely fixed, although it were the work of angels, would come in time to have the vices of a despotism. Hence, in all the new, and in most of the older, state constitutions, and in the federal constitutions also, provision is made for adopting amendments. In some of the states, alterations in the constitution may be made by the votes of two successive legislatures; and as the representatives in these states are elected annually, this does substantially involve an appeal to the people. But the general rule is, that no change can be introduced without an express reference to the opinions of the people, who either decide upon the amendment proposed in their district meetings, or elect delegates for the special purpose, who meet in convention, and decide for them. This admirable contrivance keeps the public institutions in harmony with the state of knowledge and opinion, checks the growth of abuses, prevents the state governments from degenerating into oligarchies, and destroys the seeds of convulsion and revolution, by affording an easy process for effecting those necessary changes which, in other countries, can only be accomplished by violence. Nor has this arrangement given birth to a restless spirit of innovation. Alterations have neither been numerous nor rashly gone about; and in all the states, the people have shown themselves disposed rather to bear with small inconveniences than to hazard changes of doubtful advantage. New states, however, are added to the republic from time to time, and in the forming of new, and amending of old constitutions, experiments are constantly making in the theory of government. For the first time in the history of the world, these are conducted with perfect fairness, and on rational principles; and if, therefore, we attend to the composition of the more recent, and the changes introduced into the older systems of legislation we shall ascertain what are those principles in favour of which experience seems to have decided in the United States. These may be stated in a few words. 1. There is evidently a disposition in the people of the United States to abolish all restrictions on the right of suffrage, to render it virtually universal, and to adopt the method of voting by ballot. 2. In the composition of the chamber of representatives, a preference is shown for annual elections. 3. A longer

^b North American Review for Jan. 1820. Fed. Constitution, Art. I. Sect. 10.

term of service is preferred for the senate ; and four years seem to be considered the most suitable period. 4. With this longer period is conjoined the method of partial renewal, which deserves to be considered a material improvement in legislation. In the federal government, which requires greater stability of character and purpose, a duration of two years has been judiciously assigned to the house of representatives, and six years to the senate. 5. In the old states, the governor is elected generally for one year ; in the new, for three or four years : and in all the states by the people, except in New-Jersey, Maryland, Virginia, the two Carolinas, and Georgia, where he is chosen by the legislature. He generally possesses the power of granting reprieves and pardons, the patronage of many public offices, and a qualified negative on the acts of the legislature. In exercising some of his functions, however, he must have the concurrence of the senate, which acts as his standing council ; but in a few of the old states, a special council, distinct from the senate, is appointed for this purpose. It ought to be observed, with regard to the two bodies denominated the Senate, and the Assembly or House of Representatives, that as they are both returned by the same electors, they represent one and the same interest, that of the people. The use of the second body is merely to insure greater deliberation in the public acts and resolves. There is no opposition of interest between the two ; nor is the one essentially more aristocratic than the other. The laughable quackery of a legislative balance between aristocracy and democracy is unknown in the United States.

In seven states out of the twenty-four, the senate can originate money bills ; in the others, the rule of the British parliament is servilely copied, without the shadow of a reason. In Virginia, all bills whatever must originate in the house of representatives. The right of impeachment is generally lodged in the latter body, and the power of judging the accused in the senate. But in some states the rule is, that high public officers impeached of crimes shall be tried by the ordinary courts. Massachusetts gives the titles of *his Excellency* and *his Honour* to the governor and lieutenant-governor of the state ; but none of the other states sanction or bestow any titles. In Pennsylvania, Mississippi, and Tennessee, a belief in a Deity, and in a future state of rewards and punishments, and in Massachusetts, Maryland, and North Carolina, a belief in the Christian religion, is required as a qualification for office. In New-Jersey no *protestant* can be excluded. In the other states no religious test is required. Clergymen are not eligible as members of the legislature, or as public officers of any description, except in a few states.

In eighteen states, the judges of the superior courts hold their commissions "during good behaviour,"^a subject in a few cases to a restriction on account of old age ; and

^a Judges and other persons holding offices "during good behaviour," are removable therefrom by a joint resolution of the two Houses of the Legislature ; but in general, more than a simple majority is required to pass such resolution.

^b For a fuller account of the American governments, see the Disquisition subjoined to Hall's Travels, (1818,) the *Federalist*, a collection of political essays, often reprinted in the United States, Warden, vol. III. and a set of the constitutions of the different states, also often reprinted. That which we have used, was printed in 1820 and 1821. The American government, considering the novelty of its plan, has attracted less attention in Europe, than might have been expected. Its spirit and character, however, have been described by one gifted observer, with an eloquence worthy of so noble a theme ; and we deem no apology necessary for inserting the following extracts from the splendid speech delivered by

in all these states, they are either simply nominated by the governor, or appointed by the governor and council (or senate) jointly, or elected by the legislature. They are chosen *annually* by the legislature in Rhode Island and Vermont ; elected by the people for *three* years in Georgia ; and appointed for *seven* years by the legislature in New-Jersey and Ohio, and by the governor in Indiana. Justices of peace are sometimes appointed by the governor, sometimes elected by the people, and generally hold their offices for three, four, or seven years. Sheriffs and coroners are chosen for a limited time by the inhabitants of each county, and constables by the inhabitants of each township. In the militia, which comprises all the males between the ages of eighteen and forty-five, the captains and subalterns are elected by the companies ; the field officers generally by the captains and subalterns ; the brigadiers and major-generals sometimes by the field officers, and sometimes by the civil authorities.

Electioneering contests are conducted with much keenness in the United States, but chiefly through the agency of the press. The voting, which is almost universally by ballot, is concluded in one day ; and those mobs and tumults, and scenes of beastly debauchery, which often disgrace English elections, are there almost entirely unknown. When the office is of much importance, such as that of governor of a state, it is usual for the leading men of each party in the legislature, to meet privately and pass a resolution in favour of one of the candidates, which is published : and the person who is thus recommended rarely fails to obtain the votes of the whole party out of doors, and to carry the election if that party is the most numerous. This preparatory meeting receives the cant name of *Caucus*. The power thus assumed by a few individuals to direct the public choice, or in other words, to decide for the whole population, has been strongly censured by some enlightened men. It may certainly be abused ; but the abuse will probably supply its own corrective. It is obviously a device to *unite* the votes of a party in favour of one person ; or, in other words, to prevent the more numerous party from losing the advantage of its superiority by subdividing its force.

Such is a sketch of the political system of the United States, which well merits the attention of the philosopher. Whether such a system would be practicable in older countries, is a question we do not presume to discuss ; but its utility in America is beyond dispute. "It has survived the tender period of infancy, and outlived the prophecies of its downfall. By the triumph of the democratic party, its principles have been fostered into maturity. It has borne the nation triumphantly through a period of domestic difficulty and external danger ; it has been found serviceable in peace and in war, and may well claim from the nation it has saved and honoured, the votive benediction of *esto perpetua*."^b

Mr. Jeffrey, at a public meeting in Edinburgh, in January, 1824, as given in the *Scotsman* newspaper.

"To my mind, that nation has already done the most essential service to the cause of freedom—not perhaps so much by the conduct of her people, or by the acts of her government, as by her mere existence—in peace, respect, and prosperity, under institutions more practically popular, and a constitution more purely democratic, than has ever prevailed among civilized men from the beginning of the world—thus affording a splendid illustration, and irrefragable proof, of the possibility of reconciling the utmost extent of freedom with the maintenance of public authority, and the greatest order and tranquillity, and security to private rights, with the most unbounded exercise of political ones. What else, indeed, can furnish so conclusive and triumphant a refutation of the pitiful sophisms and absurd predictions, by which the advocates of ex-

The example of the United States proves, that the expensiveness of a government is no test of its efficiency or real excellence, and that the cheapest political system may sometimes be the best. No taxes are raised within the country for the support of the federal government, the produce of the customs levied at the ports on the importation of foreign goods, and the sums derived from the sale of the public lands, constituting the whole of the public revenue. The annual amount of the revenue, expenditure, and debt, will be found in a table annexed to this chapter. The following statement is taken from the *Estimates* for 1824.

REVENUE, 1824.			
	Dollars.	Pounds Sterling.	
Customs,	16,500,000	3,630,000	
Public lands	1,600,000	350,000	
Bank dividends,	350,000	77,000	
Arrears and repayments,	100,000	22,000	
	18,550,000	4,079,000	
EXPENDITURE.			
Civil, diplomatic, and miscellaneous,	1,814,057	399,000	
Military department, including fortifications, ordnance, pensions, army, militia, and Indian department,	5,122,268	1,127,000	
Naval service, including gradual increase of navy,	2,973,927	654,000	
Public debt,	5,314,000	1,169,000	
	15,224,252	3,349,000	

The average produce of the customs may be estimated at from 16,000,000 to 18,000,000 dollars, and the sum derived from the sale of public lands at 1,600,000. The bank dividends consist of the interest of 7,000,000 dollars of capital, vested by the government in the national bank.

isting abuse have at all times endeavoured to create a jealousy, and apprehension of reform? You cannot touch the most corrupt and imbecile government, without unsettling the principles and unhooking the frame of society—you cannot give the people political rights, without encouraging them to be disobedient to lawful authority, and sowing the seeds of continual rebellion, and perpetual discontent—nor recognise popular pretensions in any shape, without coming ultimately to the abolition of all distinctions, and the division and destruction of all property—without involving society, in short, in disorders at once frightful and contemptible, and reducing all things to the level of an insecure, and ignoble, and bloody equality.—Such are the reasonings by which we are now to be persuaded, that liberty is incompatible with private happiness or national prosperity, and that the despotic governments of the world ought to be maintained, if it were only to protect the people from the consequences of allowing them any control over the conduct of their rulers! To these, we need not now answer in words, or by reference to past and questionable examples—but we put them down at once, and trample them contemptuously to the earth, by a short appeal to the *existence and condition of America!* What is the country of the universe, I would now ask, in which property is most sacred, or industry most sure of its reward? Where is the authority of law most omnipotent? Where is intelligence and wealth most widely diffused and most rapidly progressive? Where is society in its general description most peaceable, and orderly, and moral, and contented? Where are popular tumults least known, and the spirit and existence, and almost the name, of a mob least heard of? Where, in short, is political animosity least prevalent—*faction* subdued—and, at this moment, even *party* nearly extinguished, in a prevailing feeling of national pride and satisfaction? Where, but in America? America, that laid the foundation of her Republican Constitution in a violent, radical, sanguinary revolution—America, with her fundamental democracy, made more unmanageable, and apparently more hazardous, by being broken up into I do not know how many confederated and independent democracies—America, with Universal Suffrage, and monthly or weekly elections—with a free and unlicensed press—without an established priesthood, an hereditary nobility, or a permanent executive—with all that is combustible, in short, and pregnant with danger, on the hypothesis of tyranny, and without one of the checks or safeguards by which alone they contend the benefits of the very being of society can be maintained!—There is something at once audacious and ridiculous in maintaining such doctrines in the face of such experience: Nor can any thing be founded on the novelty of these institutions, or the pretence that they have not yet been put fairly on their trial.—America has gone on prospering under them for *forty years*—and has exhibited a picture of uninterrupted, rapid, unprecedented advances in wealth, population, intelligence, and concord, while

The Post-office yields about a million of dollars a year; but it is wholly consumed in supporting the establishment. The entire revenue of the United States may be estimated on an average at four millions, or four millions and a quarter sterling; and the annual expense of the government, under the three heads of civil, military, and naval, at 10,000,000 dollars, (2,200,000*l.*) This is at the rate of one dollar per annum for each inhabitant. If we add one dollar more for the sums levied by the state governments, the whole expense of the American government will be at the rate of two dollars for each inhabitant.

The debt of the United States consists of sums borrowed during the revolutionary war, and at various subsequent periods. The debt due by the federal government, at the close of the war in 1783, was 42,000,375 dollars. No proper provision being made for payment of the interest, and the public revenue often falling short of the expenditure, the debt continued to increase, and in 1790 it amounted to 79,124,464 dollars.^a Various measures were taken, for its liquidation, but with little effect, till about the middle of Mr. Jefferson's administration in 1805. From that period a gradual reduction took place, till it was stopped by the war with England in 1812.

	Dollars.
In 1812 the amount of the public debt was	45,035,123
In consequence of the loans made during the war, it amounted in 1816 to ^b	123,016,375
Considerable progress has since been made in paying off the debt, and on the 1st January, 1824, it was reduced to	90,177,962
And by the operation of a balance accumulating in the treasury, it is expected that at the 1st January, 1825, it will be reduced to	80,000,000
—or £17,600,000 sterling. ^c	

all the arbitrary governments of the old world have been overrun with bankruptcies, conspiracies, rebellions, and revolutions, and are at this moment trembling in the consciousness of their insecurity, and vainly endeavouring to repress irrepressible discontents, by confederated violence and terror. If any thing more were required to show the superior security, as well as energy and happiness of free government, I must beg merely to contrast the condition of South America, as it was till very lately—with that of the happy country to which I have been referring. These southern settlements had the advantage of being earlier established, and followed from the first by the fostering care of the parent state.—They were placed in a more fertile soil and a more propitious climate; but they were governed by non-resident despots, and given over to bigoted priests and courtly favourites, and wanting freedom, all the blessings of nature were turned to curses. Their treasures were exhausted—the population withered and shrunk under them—both races were degraded by their mixture—and they became at last among the governing classes a degenerated and corrupted mass, which mouldered away, and dissolved in its own rottenness—till it fertilized the soil over which it was scattered, for that rising and glorious harvest of liberty which now covers it with the beauty of its promise! In the north, the lot of our emigrant countrymen was cast in more ungenial regions—and their first struggles, either totally neglected or but coldly supported by the mother country—but, carrying with them that innate love of freedom which I trust will run for ever in the blood of all Britons, they surmounted all difficulties—and even under the colonial and not always equitable government of England, they made very considerable advances in wealth and civilization; and ever since they have been left to build for themselves on this firm foundation, have so multiplied and increased in the land, and advanced with such marvellous rapidity in wealth, population, industry, and power, as not only to put to shame the stationary communities of Europe, but even to make her statist and political economists revise and re-model their systems, to correspond with their unnatural and excessive prosperity! Such are the services which I conceive America to have rendered to the cause of liberty—and though they are, as I apprehend, truly incalculable in value and amount, it is pleasing to think that they have been rendered, not only without sacrifice or effort on her part—but almost without her consciousness or co-operation. They have flowed like a healing virtue from her existence and her example. She has only had to be free; and peaceful, and happy, and prosperous in her freedom, to put down the disgusting sophistry of the hireling advocates of power, and to give the strongest encouragement to all the nations of the earth to emulate her happiness and peace by imitating her freedom!"

^a Seybert's Statistical Annals, p. 720.

^b *Ibid.* p. 752.

^c American Papers, March, 1824.

The duties of customs are levied on foreign articles imported, and are partly *ad valorem*, and partly according to fixed rates. The duties on manufactured goods, of iron, cotton, and woollen, were from 20 to 30 per cent, but have been increased from a fifth to a fourth, by a new tariff established in 1824.

A standing army is necessarily an object of jealousy in a republican state; and as the North Americans have no formidable enemy in their vicinity, and are at the same time extremely studious of economy in all the branches of their government, their military force has always been kept on a very low scale. By an act of Congress of 3d March, 1815, the strength of the regular army was fixed at 9980 men, viz. eight battalions of artillery, 3200 men; one regiment light artillery, 660; eight regiments of infantry, 5440; and one regiment of riflemen, 680.^a In 1821 it was reduced to 6442 men, whose pay, clothing, &c. cost the state 1,927,179 dollars, or 299 dollars (66l.) for each individual, officers and privates. And in March, 1822, its strength, as reported to Congress, was as follows;^b—

Engineers,	23
Four Regiments of Artillery,	1977
Seven Regiments of Infantry,	3367
Ordnance Men,	53
	5420

The militia, which constitutes the principal military force of the United States, consists of all the males between the ages of eighteen and forty-five. According to a return made in the end of 1823, it amounted to 993,281 men. The American militia, as we have already stated, elect their own officers. When called into the field for actual service, they have the same pay and allowances as the regular army, but are only bound to serve for six months.

The navy of the United States is small in point of numerical strength, but is perhaps the best organized and most effective in the world. The unexpected and astonishing success of their frigates in combats with British vessels of the same class during the late war, established at once the reputation of the American navy for skill and prowess in the eyes of Europe; and the United States, with a very few ships, already rank high as a naval power. From 1816 to 1821, one million of dollars was expended annually in building ships of war. Since 1821 the sum thus appropriated has been reduced one half. A few ships are always kept in commission, and stationed partly in the West Indies, partly in the Mediterranean to keep in check the Barbary powers, and partly in the Pacific. In November, 1823, the strength of the American navy was as follows:—

	In Com- mission.	In Ordi- nary.	Building.
Ships of the Line,	1	6	5
Frigates,	3	4	5
Smaller Vessels,	12	2	—
Steam Frigates,	—	3	—

This is exclusive of the vessels on the lakes, which consist of two of 74 guns, one of 44, one of 36, one of 32, one

of 26, two of 24, eleven smaller vessels, and fourteen gun-boats—some being unfinished, and others considerably decayed.

A table of the population of the several states will be found annexed to this book. That of the principal towns in 1820 was as follows:—

New-York,	123,706	Boston,	43,940
Philadelphia,	114,410	New-Orleans,	27,176
Baltimore,	62,738	Charleston,	24,780

It was reserved for the lawgivers of the United States to make the bold experiment of dispensing with a state religion. In New-Hampshire the legislature is empowered to *authorise*, and in Massachusetts the legislature is enjoined to require, the several towns and parishes to make adequate provision, at their own expense, for the support of *Protestant* ministers.^c But in all the other twenty-two states the support of religion is left entirely to the voluntary zeal of its professors. The result has shown that Christianity has a firm hold in the nature of man, and is rather injured than served by those costly establishments, which so often abridge or extinguish free inquiry and liberty of conscience, engender fierce animosities among rival sects, perpetuate the errors and dogmas of unenlightened times, and degrade religion into an engine of civil tyranny, or the ally of ignorance and imposture. In the large towns and populous places of New-England, New-York, and Pennsylvania, religious instruction is more faithfully and abundantly dispensed, and religious ordinances are more strictly and universally observed, than in any other country in the world.^d To this advantage, we may add, that of the peace and harmony which reigns among the different religious communities, and the entire absence of those jealousies, bickerings, and heart-burnings, which the exaltation of a single sect so invariably creates. In the newly settled districts, where a small population is spread over a wide surface, the means of religious instruction are often deficient, and must be so, even were the wealth of an establishment expended in providing them.

The most numerous sects are the Congregationalists, Baptists, and Methodists. The Congregationalists, or Independents, abound chiefly in New-England, and have about 1200 congregations, some of which use organs in their public worship. The Baptists, who are most numerous in the middle, southern, and western states, had 2727 churches in 1817, and have now about 3000; but as their congregations in New-England are estimated by Dr. Morse only at 250 persons each, while those of the Congregationalists average about 1000,^e the latter are probably more numerous upon the whole. The Methodists, who abound most in the southern and western states, have about 2000 congregations, and display a very active proselyting spirit. The Presbyterians, whose principal strength lies in the middle states, have about 900 congregations, which are classed into presbyteries and synods. The Associate Reformed, or American Burghers, have about 100 churches, and the Associate Synod, or Antiburghers, about 50; but there is a tendency in both these sects to coalesce with the Presbyterians. The Dutch Reformed Church, confined to New-York and New-Jersey, has about 200 churches. The Episcopalians had 600 churches, and 346

^a Warden, III. 402.

^b Niles' Register, 30th March, 1822.

^c The same rule held in Connecticut until it was abolished by the new Constitution in 1818.

^d See the triumphant reply of Dwight to an English writer, on the supposed ruinous state of religion in New-England. Dwight's Travels, vol. iv. 430.

^e Morse, vol. i. 368.

clergymen, in 1822,^a chiefly in the middle and southern states. They are governed by a convocation, consisting of two houses. The Catholics, who are not numerous any where but in Maryland, are estimated by Dr. Morse to amount to 75,000. The Quakers have about 190 congregations, chiefly in the middle states. The Moravians, Universalists, Mennonists, Cameronians, and other sects, have each a few churches; and the Jews have synagogues at New-York, Newport, Philadelphia, Charlestown, and Savannah. The whole number of churches, or religious societies, in the United States, is probably not under 9000, or one for each 1100 inhabitants.

The duties of a clergyman in the United States, are laborious and incessant; the pay arises from pew rents, and voluntary contributions, sometimes from small glebes, fixed funds, or land. It is seldom so large as to prove a temptation to the worldly-minded; but when a congregation is numerous, it is generally sufficient to support the clergyman respectably. In populous towns it is from 2000 to 4000 dollars, (450 to 900*l.*;) but in country places it is greatly lower, and is sometimes paid in kind, or raised by penny-a-week associations. A gratuity varying from five to twenty dollars, is usually presented to the clergyman at a marriage. For these slender emoluments, the Americans secure the services of a body of moral, faithful, diligent, and often well-educated clergymen, among whom, fox-hunting and sinecures, and non-residence, are unknown. Missionary and Bible Societies, and religious institutions of all kinds, are fully more numerous than in Britain in proportion to the population. The Sabbath in some places is kept from sun-set on Saturday to sun-set on Sunday.^b

There are about thirty colleges or universities in the United States, of which Harvard and Yale are the most celebrated; but most of these are less perfect than the kindred establishments in Europe; and classical and scientific education is generally in a much lower state. Harvard university in Massachusetts, has fifteen literary and six medical professors, and generally from 300 to 400 students. The three terms amount to nine months in the year, and the vacations to three; the academical course is completed in four years, and the expense of a student's board and education is about 500 dollars (110*l.*) a-year, on the lowest scale. Among the theologians of this university, Socinianism is almost universally prevalent. Yale college in Connecticut is less richly endowed than Harvard, but enjoys an equal reputation. The faculty consists of a president, nine professors, four medical examiners, and six tutors. The students, except those whose parents live in the town, board within the college. At this seminary, the advantages of the English and Scotch systems are to a considerable extent combined. The scope for original discussion, and elegance of illustration which lecturing affords, is connected with the more laborious and effective discipline of tutors and examinations; the students are not considered as passive recipients of knowledge, but

are stimulated to the active exercise of their own powers. All the classes are subjected to a rigorous examination twice a year; and those examinations, with the numerous exercises prescribed, and the severe discipline enforced, drive away the laggard and disorderly members, and insure a respectable proficiency in those who receive degrees at the end of the fourth year. This college had 412 students in 1820. Most of the other universities and colleges are organized on the same principles.^c

Public provision to a less or greater extent, is made in almost all the states for the support of common schools. In the old states, funds have been set apart for this purpose from time to time out of the public taxes or property. In the new states, one square mile in every township, or one *thirty-sixth* part of all the lands, has been devoted to the support of common schools, besides seven entire townships for the endowment of larger seminaries. Throughout New-England, the means of education are generally ample; and a grown person unable to read and write, can scarcely be found. In the southern states, where they were more deficient, a zealous attention to the subject has been lately awakened; and families in sequestered situations unite to procure teachers for the children at a great expense.^d But no state in the Union, and no country in the world, is so amply provided with the means of elementary instruction as the state of New-York; in which there were, in 1823, no less than 7382 common schools, affording education to 400,534 young persons, which rather exceeds the fourth part of the whole population.^e In the middle and eastern states, the people are more universally educated, at present, than in any other part of the world; and there is every probability, that the western and southern states will soon share in the same distinction. It is to this circumstance, to the superior degree of comfort the people enjoy, and to the elevation of character nourished by their republican institutions, that we must attribute the non-existence of any class in the United States to which the term mob, populace, or rabble, can be applied.^f

The growth of a native literature in the United States has been impeded by several causes. First, the number of well educated persons living in idleness, who cultivate taste, and encourage its cultivation in others, is comparatively small. Secondly, the universal addiction to gainful pursuits, and the striking success which repays them; disheartens persons from engaging in occupations that do not fill the pocket. But thirdly, by far the greatest impediment is the existence of the more advanced literature of England, in the very language of the country. Though the political connexion has ceased, the United States, in what regards literature, are nearly as much a province of Britain as Yorkshire or Ireland. So long as British writers furnish the standard by which transatlantic works are tried, native American writers will not receive justice; and while American publishers can import and reprint,

^a Niles' Register, 1822.

^b For the state of religion in North America, see Morse, I. 206. Warden, chap. 49. Duncan's Travels, (1823) Letter 20. Hodgson, Letters from North America, II. 212—230, and passim; and Dwight's Travels, IV. 309—456.

^c Duncan's Travels, Letters 3d and 5th.

^d Hodgson's Letters, I. 387.

^e In all the New-England states, except Rhode Island, the education of the entire population is provided for by law. The towns and townships are divided into districts, in which schools are supported, for at least a certain part of the year, by public funds or taxes; and in Massachusetts all

MSL. II.—NOS. 79 & 80.

towns, of at least 5000 inhabitants, are required to support a school for Greek and Latin. The state of Connecticut has a public fund, derived from the sale of lands in the western reserve (Ohio,) of which the nominal capital, April 1, 1828, amounted to \$1,877,615—the largest fund, in proportion to the population, for the purposes of general education, now in existence. In 1820, when the population of Connecticut was 275,000, the number of children, between the ages of 4 and 10, who were entitled to receive the benefits of this fund, was 84,173, or nearly one third of the whole population. In 1827, it was 85,147.—P.

^f Warden, chap. 48. Morse, passim. Walsh's Appeal, (1819) p. 297.

without risk or expense, works already stamped with the approbation of British critics, and the British public, they will feel the less inclined to engage in the doubtful and hazardous speculation of publishing the original products of American genius. Besides, the appetite for knowledge, and the sort of amusement which reading affords, like the desire for clothes and luxuries, requires a certain, and only a certain supply; and in the one case, as in the other, when the article can be cheaply imported, the native manufacture is discouraged. America, however, is rapidly acquiring a literature of her own, and the productions of her press already begin to attract attention in Europe.

In one department of literature, of a humble indeed, but a most useful description, the United States stand unrivalled. We allude to their Newspaper press. There were but seven papers published in the United States in 1750;^a but in 1810 there were 359, (including twenty-five published daily,) which circulated 22,200,000 copies in the year. In 1823 they had increased to the astonishing number of 593, according to the following table, published in New-York.

Periodical Press of the United States in 1823.

In Maine	12	Georgia	14
New-Hampshire	11	Ohio	48
Massachusetts	35	Indiana	12
Rhode Island	9	Illinois	5
Connecticut	23	Missouri	6
Vermont	8	Kentucky	18
New-York	137	Tennessee	15
New-Jersey	18	Mississippi	7
Pennsylvania	110	Alabama	10
Delaware	4	Louisiana	8
Maryland	22	Michigan	1
Virginia	35	District of Columbia	8
North Carolina	10		
South Carolina	12		
		Total	593

The number of copies circulated in the year, by these journals, probably exceeds 30,000,000. In the British

^a Dwight's Travels, IV. 345.

isles in 1821, with twenty millions of people, the number of newspapers was estimated to be 284, and the copies printed annually 23,600,000.^b The whole of continental Europe, containing 160 millions of inhabitants, where the press is chained down by royal and priestly jealousy, certainly does not support half the number of journals which exist in the United States alone. They are superficial observers, who attach a small importance to this humble branch of literature. Though none of the American papers equal the best of those published in London, the periodical press of the United States, taken altogether, is the most powerful engine for diffusing mercantile, political, and general information, for stimulating the activity, and operating on the minds and morals of the people, which has ever existed in any country. No duty is paid, either on the papers themselves, or on the advertisements they publish. The price of a weekly paper is about two dollars per annum, or twopence each number; that of a daily paper from eight to ten dollars, or one penny halfpenny each number. A single paper sent by post pays one cent (a halfpenny) for any distance under 100 miles, and a cent and a half for all greater distances; and pamphlets may be transmitted by post at the same expense.

The following are the dates of a few of the principal events in the history of the United States.

1607.	First settlement made by the English.
1776.	July 4. The independence of the United States proclaimed.
1782.	Nov. 30. Peace concluded with Great Britain.
1787.	Sept. 17. Federal constitution framed.
1789.	March 4. Inauguration of George Washington as president.
1797.	John Adams as president.
1801.	Thomas Jefferson as president.
1809.	James Madison as president.
1812.	June 18. War declared against Britain.
1814.	Dec. 24. Peace concluded.
1817.	March 4. Inauguration of James Monroe as president.
1825.	John Q. Adams as president.
1829.	Andrew Jackson as president.

^b Lord John Russel's Speech on Reform, April, 1822, p. 42.

TABLE

Of the Population of the United States in 1790, 1800, 1810, and 1820, according to the Returns.

States or Territories.	Population including Slaves.				Slaves.		States or Territories.	Population including Slaves.				Slaves.	
	1790.	1800.	1810.	1820.	In 1790.	In 1820.		1790.	1800.	1810.	1820.	In 1790.	In 1820.
Vermont	85,539	154,467	217,895	235,764	16		Tennessee		105,602	261,727	422,813		80,097
New-Hampshire	141,885	183,858	214,460	244,161	158		Ohio			230,760	581,434		
Maine	96,540	151,719	228,705	298,335			Indiana			24,520	147,178		190
Massachusetts	378,787	422,845	472,046	523,237			Illinois	36,691		12,282	55,211		917
Rhode Island	63,825	69,122	76,931	83,051	948	48	Missouri		59,886	20,845	66,586		10,222
Connecticut	237,946	251,002	261,942	275,248	2,764	97	Arkansas				14,273		1,617
New-York	340,120	586,050	959,045	1,372,813	21,324	10,088	Michigan			4,762	8,890		
New-Jersey	184,139	211,140	245,562	277,577	11,423	7,557	Dist. Columbia		14,092	24,022	33,032		6,377
Pennsylvania	434,373	602,548	810,091	1,049,458	3,737	211	Mississippi			40,352	75,448		32,814
Delaware	59,094	64,273	72,674	72,742	8,887	4,509	Alabama				127,901		41,879
Maryland	319,728	349,692	380,546	407,350	103,036	107,398	Total	3,921,326	5,319,768	7,239,903	1,038,226	634,286	1,538,113
Virginia	747,610	885,119	974,622	1,065,369	292,627	425,153	Florida (supposed)				10,000		
Kentucky	73,677	220,95	406,511	561,317	12,430	126,732					2,648,226		
North Carolina	323,751	478,101	555,500	638,822	100,572	205,017	Slaves	671,280	889,881	1,165,441	1,538,118		
South Carolina	240,073	345,591	415,117	502,741	107,094	258,475	Free Persons	3,227,046	4,429,887	5,074,562	3,110,108		
Georgia	82,548	162,688	252,432	340,987	29,264	149,656							
Louisiana			76,550	153,407		69,064							

TABLE

Showing the Extent, Population, and Representation of each State, and the Proportion of its Inhabitants engaged respectively in Agriculture, Manufactures, and Commerce, according to the census of 1820.

States and Territories.	Square Miles.	Population.	Agriculture.	Manufactures.	Commerce.	Population in each Square Mile.	Senators.	Representatives for 1820.
STATES.								
Maine	32,000	298,335	55,041	7,643	4,297	9½	2	7
New-Hampshire	9,280	214,161	52,384	8,699	1,668	26	2	6
Vermont	10,200	235,764	50,951	8,484	776	23	2	5
Massachusetts	7,800	523,287	63,160	33,466	13,301	67	2	13
Rhode Island	1,360	83,059	12,559	6,091	1,162	61	2	2
Connecticut	4,670	275,248	50,518	17,511	3,581	59	2	6
New-York	46,200	1,372,812	247,648	60,038	9,113	30	2	34
New-Jersey	6,900	277,575	40,811	15,941	1,830	40	2	6
Pennsylvania	43,950	1,049,458	140,801	60,215	7,083	24	2	23
Delaware	2,060	72,719	13,259	2,821	533	35	2	1
Maryland	10,800	407,359	79,135	18,640	4,771	38	2	9
Virginia	64,000	1,065,366	276,422	32,336	4,509	17	2	22
North Carolina	43,800	638,829	174,196	11,844	2,551	15	2	13
South Carolina	30,080	502,741	166,707	6,747	2,684	17	2	9
Georgia	56,200	340,980	101,185	3,557	2,139	6	2	7
Alabama	50,800	127,901	30,642	1,412	452	2½	2	2
Mississippi	45,350	75,448	22,033	650	294	1½	2	1
Louisiana	48,000	153,407	53,911	6,041	6,251	3	2	3
Tennessee	41,300	422,813	101,919	7,860	882	10	2	9
Kentucky	39,000	564,317	132,161	11,779	1,617	14½	2	12
Ohio	38,500	581,434	110,991	18,956	1,495	15	2	14
Indiana	36,250	447,178	61,315	3,229	429	4	2	3
Illinois	59,000	55,211	12,335	1,007	233	1	2	1
Missouri	60,300	66,586	14,247	1,952	495	1	2	1
TERRITORIES.								
Michigan	33,750	8,896	1,468	196	392	½		
Arkansas	121,000	14,273	3,613	179	79	½		
Florida	57,750					½		
North-West Territory	144,000							
Missouri Territory	930,000							
Columbia Territory	288,000							
District of Columbia	100	33,039	853	2,184	512	330		
Totals	2,364,400	9,638,226	2,170,646	349,506	72,453		48	212

POPULATION OF THE UNITED STATES,

ACCORDING TO THE CENSUS OF 1820.

States and Territories.	Free White Males.	Free White Females.	Free Peopl. of Colour.	Slaves.	Other Persons.	Total.	States and Territories.	Free White Males.	Free White Females.	Free Peopl. of Colour.	Slaves.	Other Persons.	Total.
Maine	149,197	148,147	929		66	298,335	Kentucky	223,606	210,948	2,759	126,732	182	564,317
New-Hampshire	119,216	121,626	786		130	244,161	Ohio	300,607	275,967	4,722		139	581,434
Vermont	117,310	117,533	918			235,764	Indiana	75,644	69,108	1,231	190		147,178
Massachusetts	252,154	234,267	6,740		128	523,287	Illinois	21,401	21,387	457	917	49	43,204
Rhode Island	38,492	40,921	3,554	48	44	83,059	Missouri	31,001	21,987	347	10,222	20	66,586
Connecticut	139,897	133,374	7,870		97	275,248	Michigan Territory	5,381	3,208	174		101	8,896
New-York	674,551	653,193	29,279	10,088	701	1,372,812	Arkansas Territory	6,971	5,608	59	1,617	18	14,273
New-Jersey	124,619	127,748	12,460		7,557	277,575	District of Columbia	11,171	11,443	4,048	6,377		33,039
Pennsylvania	516,618	500,476	39,202		211	1,049,458							
Delaware	27,307	27,377	12,958	4,50		72,719							
Maryland	131,742	128,171	39,739	107,398		407,359							
Virginia	394,731	248,373	36,88	425,153	250	1,065,366							
North Carolina	209,614	200,556	14,412	205,917		638,829							
South Carolina	120,934	116,506	6,826	258,475		502,741							
Georgia	98,404	91,162	1,763	149,656	4	340,980							
Alabama	45,831	39,612	571	41,879		127,901*							
Mississippi	23,283	18,800	458	32,814		75,448							
Louisiana	41,332	32,951	10,476	69,061	484	153,407							
Tennessee	173,600	166,325	2,739	80,097	52	422,813							

The population of the North-West and Missouri Territories are not given separately in the census. Florida was not annexed to the United States when the census was taken. It is supposed that it contains 10,000 inhabitants.
* See note, p. 224.

TABLE

Of the Amount of the Valuations of Lands, Lots, and Dwelling-Houses, and of Slaves, in the several States, made under the Acts of Congress of the 22d July, 1813, and 9th January, 1815, as returned and revised by the Board of Principal Assessors, with the corresponding Valuations in 1799.

STATES.	Value of houses, lands, and slaves, as revised and equalized by the principal assessors in 1814 and 1815.	Value of houses and lands after deducting estimated value of slaves.*	Value of houses and lands in 1799.	Average value of lands per acre, including houses thereon.†	
	Dollars.	Dollars.	Dollars.	Dolls.	Cts.
New-Hampshire	38,745,974	38,745,974	23,175,046	9	0
Massachusetts	143,765,560	143,765,560	83,992,468	18	0
Rhode Island	20,907,766	20,907,766	11,066,357	39	0
Connecticut	88,534,971	88,534,971	48,313,424	34	0
Vermont	32,461,120	32,461,120	16,723,873	6	40
New-York	273,120,900	269,370,900	100,380,706	16	50
New-Jersey	98,612,083	95,899,333	36,473,899	35	0
Pennsylvania	346,633,889	346,633,889	102,145,900	29	0
Delaware	14,493,620	13,449,370	6,234,413	13	0
Maryland	122,577,572	106,490,638	32,372,290	20	0
Virginia	263,737,699	165,608,199	71,225,127	4	15
North Carolina	93,723,031	51,517,031	30,812,372	2	50
South Carolina	123,416,512	74,325,262	17,465,012	8	0
Georgia	57,792,158	31,487,658	12,061,137	2	50
Ohio	61,347,215	61,347,215			
Kentucky	87,018,837	66,878,537	21,408,090	4	0
Tennessee	35,408,052	24,233,750	6,134,108	6	0
	1,990,296,961	1,631,657,224	619,977,247		

Louisiana is not included in the above table, the returns being incomplete.

TABLE

Of Manufactures of the United States, according to Returns made to the Marshals in 1810.

The value as distributed among the states was as follows :

Maine, - - -	2,138,000	North Carolina, - - -	5,323,000
New-Hampshire, - - -	8,135,000	Tennessee, - - -	3,708,000
Vermont, - - -	4,325,000	South Carolina, - - -	2,174,000
Massachusetts, - - -	17,516,000	Georgia, - - -	2,744,000
Rhode Island, - - -	3,080,000	Mississippi Territory	314,000
Connecticut, - - -	5,901,000	Orleans Territory, - - -	814,000
New-York, - - -	14,569,000	Louisiana Territory, - - -	35,000
New-Jersey, - - -	4,703,000	Indiana Territory, - - -	197,070
Pennsylvania, - - -	32,089,000	Illinois Territory, - - -	72,000
Delaware, - - -	990,000	Michigan Territory, - - -	37,000
Maryland, - - -	6,554,000	Columbia District, - - -	719,000
Virginia, - - -	11,447,000		
Ohio, - - -	1,987,000	Total—dollars	133,692,070 †
Kentucky, - - -	4,121,000		

The following are the most prominent particulars :

Goods manufactured by the loom, - - - - -	39,500,000
Machinery of various kinds, - - - - -	6,100,000
Hats, - - - - -	4,300,000
Iron manufactures, - - - - -	14,360,000
Leather, - - - - -	17,900,000
Distilled and fermented liquors, - - - - -	16,530,000
Wooden manufactures, - - - - -	5,540,000

* As the value of slaves is different in different states, and the number of slaves valued cannot be ascertained from the returns of the assessors, the value of houses and lands in most of the slave holding states cannot be ascertained with precision. It is believed that the valuations made in most of the states, and particularly those in the south, in 1799, were considerably under the real value.

† In this calculation the number of acres is taken from the returns of land, valued in each state in 1799, the returns of the quantity of lands valued in 1814 and 1815 being in some of the states incomplete. (Pitkin, p. 373.)

‡ Mr. Tench Coxe, Secretary to the Treasury, showed that, allowing for short returns and imperfect returns, the true amount should be about 172,762,676 dollars.

Cotton of Domestic Growth, Exported from 1805 to 1817.

Years.	Sea Island.	Upland.	Value.
	Pounds.	Pounds.	Dollars.
1805	8,787,659	29,602,428	9,445,000
1806	6,096,082	29,561,383	8,332,000
1807	8,926,011	55,018,448	14,232,000
1808	949,051	9,681,394	2,221,000
1809	8,654,213	42,326,042	8,515,000
1810	8,604,078	84,657,384	15,108,000
1811	8,029,576	54,028,660	9,652,000
1812	4,367,806	24,519,571	3,080,000
1813	4,134,849	14,975,167	2,324,000
1814	2,520,338	15,208,669	2,683,000
1815	8,449,951	74,548,796	17,529,000
1816	9,900,326	72,046,790	24,106,000
1817			22,628,000

TABLE

Of Exports of certain Classes of Domestic Produce, at three different Periods.

	1804.	1810.	1816.
	Dollars.	Dollars.	Dollars.
Exports of Articles, the Produce of the Forest, Timber, Ashes, Bark, Firs, &c.	4,630,000	4,978,000	7,293,000
Produce of Agriculture, Wheat, Flour, Rice, &c.	12,250,000	10,750,000	13,150,000
Produce of Animals, Horses, Beef, Pork, Hides, Butter, &c.	4,300,000	2,169,000	2,093,000
Produce of the Sea, Oil, Fish, &c.	3,420,000	1,481,000	1,331,000

TABLE

Of the Tonnage of each State, and of the whole Union, in 1821.

Maine,	122,856
New-Hampshire,	23,335
Massachusetts,	316,069
Rhode Island,	39,314
Connecticut,	45,724
New-York,	244,338
New-Jersey,	34,533
Pennsylvania,	83,575
Delaware,	10,043
Maryland,	125,149
District of Columbia,	24,677
Virginia,	63,326
North Carolina,	38,864
South Carolina,	29,944
Georgia,	14,662
Mississippi,	6,131
Louisiana,	38,815
Kentucky and Ohio,	598
Michigan,	665
	1,262,618

Registered tonnage employed in foreign trade,	619,029
Enrolled and licensed tonnage employed in coasting trade,	588,014
ditto ditto in fisheries,	55,575

1,262,618

Table of Imports for the United States for 1821.

Countries.	Merchandise.	Bullion and Specie.	Total.
Russia	1,852,000		1,852,000
Prussia	1,000		1,000
Sweden	750,000	10,000	760,000
Denmark and Norway	16,000		16,000
Holland	587,000	1,352,000	1,939,000
British Islands	24,439,000	648,000	25,087,000
Gibraltar	631,000	603,000	1,234,000
Hanse Towns	800,000	190,000	990,000
France	4,125,000	865,000	4,990,000
Spain	516,000	26,000	542,000
Portugal	215,000	141,000	356,000
Italy and Malta	618,000	355,000	973,000
Austria	132,000	98,000	230,000
Total EUROPE	34,682,000	4,288,000	38,970,000
British Ports	5,000	2,000	7,000
Teneriffe	265,000		265,000
Madeira	180,000	10,000	190,000
Fayal	137,000	1,000	138,000
Bourbon	10,000		10,000
Cape de Verd	32,000	32,000	64,000
Turkey, Levant, and Egypt	305,000	91,000	396,000
Generally	62,000	68,000	130,000
Total AFRICA	996,000	204,000	1,200,000
Dutch East Indies	134,000		134,000
British	1,531,000		1,531,000
Manilla and Philippine Islands	115,000		115,000
China	3,112,000		3,112,000
Generally	123,000		123,000
Total ASIA	5,015,000		5,015,000
British Colonies	403,000	89,000	492,000
Florida	163,000	27,000	190,000
Honduras	135,000	81,000	216,000
Total NORTH AMERICA	701,000	197,000	898,000
Swedish	318,000	293,000	611,000
Danish	1,674,000	310,000	1,984,000
Dutch	755,000	106,000	861,000
British	126,000	801,000	927,000
Haiti	1,742,000	504,000	2,246,000
French	865,000	36,000	901,000
Spanish	614,000	13,000	627,000
Cuba	5,422,000	1,163,000	6,585,000
Generally	4,000		4,000
Total WEST INDIES	11,520,000	3,226,000	14,746,000
Spanish	985,000	120,000	1,114,000
Brazil	585,000	20,000	605,000
South Seas	34,000		34,000
Total SOUTH AMERICA	1,604,000	149,000	1,753,000
Uncertain Ports	4,000		4,000
Total Imports	54,522,000	8,064,000	62,586,000*

Table of Exports of the United States for 1821.

Countries.	Domestic Produce.	Foreign Produce.	Bullion and Specie.	Total.
Russia	128,000	501,000		629,000
Sweden	154,000	63,000		217,000
Denmark	166,000	360,000		526,000
Holland	1,955,000	1,739,000		3,694,000
British Islands	18,634,000	209,000	1,934,000	20,777,000
Gibraltar	956,000	482,000	32,000	1,470,000
Hanse Towns	1,536,000	597,000		2,133,000
France	5,169,000	347,000	12,000	5,528,000
Spain	349,000	191,000		540,000
Portugal	148,000			148,000
Italy and Malta	410,000	690,000		1,100,000
Austria	32,000	308,000		340,000
Generally	184,000	11,000		195,000
Total EUROPE	29,821,000	5,498,000	1,978,000	37,297,000
British Ports	10,000	5,000		15,000
Teneriffe	74,000	42,000	7,000	123,000
Madeira	193,000	25,000	2,000	220,000
Fayal	27,000	11,000		38,000
Bourbon	19,000	2,000	21,000	42,000
Cape de Verd	22,000	8,000		30,000
Turkey, Levant, and Egypt	31,000	407,000		438,000

Table of Exports continued.

Countries.	Domestic Produce.	Foreign Produce.	Bullion and Specie.	Total.
Generally	85,000	42,000		127,000
Total AFRICA	461,000	542,000	30,000	1,033,000
Dutch East Indies	133,000	324,000	1,258,000	1,715,000
British	32,000	49,000	1,885,000	1,966,000
Manilla & Philippine Islands	1,000	20,000	190,000	211,000
French	6,000	2,000		8,000
China	389,000	510,000	3,392,000	4,291,000
Generally	32,000	26,000	1,155,000	1,213,000
Total ASIA	593,000	931,000	7,880,000	9,404,000
British Colonies	2,010,000	2,000		2,012,000
Others	12,000	46,000		58,000
Florida	300,000	107,000	4,000	401,000
Honduras	100,000			100,000
North-West Coast	94,000	283,000		377,000
Newfoundland and Fisheries		5,000		5,000
Total NORTH AMERICA	2,516,000	443,000	4,000	2,963,000
Swedish	507,000	53,000		560,000
Danish	1,316,000	471,000	15,000	1,802,000
Dutch	533,000	116,000	34,000	683,000
British	265,000			265,000
Haiti	1,741,000	469,000	60,000	2,270,000
French	847,000	49,000		896,000
Cuba	2,950,000	1,326,000	265,000	4,541,000
Spanish	175,000	34,000		209,000
Generally	513,000	47,000		560,000
Total WEST INDIES	8,847,000	2,565,000	374,000	11,786,000
Spanish	508,000	475,000	55,000	1,038,000
Brazil	885,000	340,000	157,000	1,382,000
South Seas	40,000	31,000		71,000
Total SOUTH AMERICA	1,433,000	846,000	212,000	2,491,000
Total Exports	43,671,000	10,825,000	10,478,000	64,974,000

Table of the Exports of the United States, from 1800 to 1821.

Years.	Exports.	Domestic Growth, Produce, or Manufacture.	Foreign.
1800	70,971,780	31,840,903	39,120,877
1801	94,115,925	46,377,792	46,642,723
1802	72,483,160	26,182,173	35,774,971
1803	55,800,033	42,205,961	13,594,073
1804	77,699,074	41,467,477	36,231,597
1805	95,566,021	42,387,002	53,179,019
1806	101,536,963	41,253,727	60,283,236
1807	108,343,150	48,699,692	59,643,558
1808	22,430,960	9,433,546	12,997,414
1809	52,203,283	31,405,702	20,797,531
1810	66,707,970	42,366,675	24,391,295
1811	81,316,833	45,294,043	16,022,790
1812	38,527,236	30,032,109	8,495,127
1813	27,855,997	25,008,152	2,847,845
1814	6,927,441	6,782,273	145,169
1815	52,557,753	45,974,403	6,583,350
1816	81,920,452	64,781,896	17,138,556
1817	87,671,566	68,313,400	19,358,069
1818	93,281,133	73,854,437	19,426,696
1819	70,142,521	50,976,838	19,165,683
1820	69,691,669	51,683,640	18,008,029
1821	64,974,382	43,671,894	21,302,488†

The imports have not been regularly published.

* Total value of imports into the United States, for the year ending Sept. 30,

1823, 77,597,267

1824, 80,549,007

Increase, 2,969,740

† Total value of exports from the United States, for the year ending Sept. 30,

1823, 74,699,030

1824, 75,986,657

Increase, 1,287,627

Table of the Post-Office Establishment of the United States,
from 1790 to 1821.

Years.	Post Offices.	Post Roads.	Receipts.	Expenses.
		M. les.	Dollars.	Dollars.
1790	75	1,875	37,935	32,140
1791	89	1,905	46,294	36,697
1792	195	5,642	67,444	54,531
1793	299	5,642	104,747	72,040
1794	450	11,984	128,947	89,373
1795	453	13,207	160,620	117,893
1796	468	13,207	195,067	131,572
1797	554	15,180	213,998	150,114
1798	630	16,180	232,977	179,104
1799	677	16,180	264,846	188,038
1800	993	20,817	280,804	213,994
1801	1,025	22,300	320,443	255,151
1802	1,114	25,315	327,045	281,996
1803	1,258	25,315	351,823	322,364
1804	1,405	29,556	389,150	337,502
1805	1,558	31,076	421,373	377,367
1806	1,710	33,431	446,106	413,573
1807	1,848	33,755	478,763	453,885
1808	1,944	34,035	469,561	462,828
1809	2,012	34,035	506,634	498,012
1810	2,300	35,466	551,684	495,969
1811	2,403	36,406	587,247	499,099
1812	2,610	39,378	619,208	540,165
1813	.....	37,540	703,155	681,012
1814	.....	41,736	730,370	727,126
1815	3,000	43,966	1,043,065	748,121
1816	3,460	48,976	961,782	804,022
1817	3,659	52,689	1,002,793	916,515
1818	3,618	59,473	1,130,235	1,035,832
1819	4,000	68,586	1,204,737	1,117,861
1820	4,500	73,492	1,111,927	1,160,926
1821	4,976	79,808	1,029,102	1,165,481

Table of the Public Debt, Revenue, and Expenditure of the
United States, from 1791 to 1822.

Years.	Public Debt.	Receipts.	Expenditures.
	Dollars.	Dollars.	Dollars.
1791	75,169,974	4,771,342	3,797,436
1792	76,373,767	8,772,458	8,962,950
1793	77,587,997	6,450,195	6,479,977
1794	75,996,170	9,439,855	9,041,553
1795	78,149,937	9,515,758	10,151,240
1796	81,642,272	8,740,329	8,367,776
1797	80,934,023	8,758,780	8,625,877
1798	78,494,165	8,179,170	8,583,618
1799	77,399,909	12,546,813	11,002,396
1800	81,633,325	12,413,978	11,952,534
1801	82,000,167	12,945,455	12,273,376
1802	78,754,568	14,995,793	13,270,487
1803	74,731,922	11,064,097	11,258,983
1804	85,353,643	11,826,307	12,615,113
1805	80,534,058	13,560,693	13,598,309
1806	74,542,957	15,559,931	15,021,196
1807	67,731,645	16,398,019	11,292,292
1808	64,742,326	17,060,661	16,762,702
1809	56,732,379	7,773,473	13,867,226
1810	53,156,532	12,134,214	13,309,994
1811	47,855,070	14,422,634	13,592,604
1812	45,035,123	22,639,032	22,279,121
1813	55,907,452	40,524,844	39,190,520
1814	80,986,291	34,878,432	38,547,915
1815	99,824,410	51,283,946	25,522,089
1816	123,016,375	36,743,573	23,546,341
1817	115,807,805	24,387,983	14,958,539
1818	99,107,346	26,095,200	13,563,069
1819	92,648,177	21,435,700	16,068,215
1820	88,899,333	15,284,546	14,224,403
1821	89,214,236	14,264,000	10,929,174
1822	93,424,000	19,745,409	18,278,653
1823	91,344,000		

BOOK LXXXIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Mexico, comprising New Mexico and the Captain-Generalship of Guatemala.—General Physical Description.

WE are now about to survey, in succession, the vast possessions of the Spanish nation, or their revolted descendants, in the two Americas;—possessions comprehended between lat. $43^{\circ} 34'$ south, and $37^{\circ} 48'$ north,^a which equal in length the whole of Africa, and surpass in extent the immense countries in Asia that acknowledge the dominion of Great Britain and Russia. The missionary establishment of San Francisco, on the coast of New California, forms the most northerly point; and the most southern extremity inhabited by the Spaniards is Fort Maullin, on the coast of Chili, opposite to Chiloe; for the establishment of the port of Soledad, situated eight degrees more to the south, in the group of the Malouine or Falkland islands, whither the criminals, condemned at Monte-Video, are annually transported, cannot be looked upon as a permanent settlement, since it is not permitted to send women thither. Some families of Spanish descent, nevertheless, are still to be met with in the island of Caylin, or Quilan, in $43^{\circ} 34'$ of south latitude. The Spanish language, then, is diffused in America over an extent of country more than a thousand leagues in length; and the whole of these regions, peopled by more than thirteen millions of inhabitants,^b communicated with each other, previously to the late troubles, by a regular establishment of posts, extending from Paraguay to the north-west coast of North America.

This transatlantic Spain, far more interesting in many points of view than its European metropolis, will supply us with abundant materials for an historical and political description, which, however, ought first of all to be preceded by a physical and topographical account of the great divisions of which it is composed.

But, amongst these very complicated, and very confused divisions, which ought we to adopt? In a military and executive point of view, the dominions of the king of Spain in America were formerly divided into nine great governments, which might be considered as independent of each other, and which, within the last twelve years,^c have actually resolved themselves into separate states, of different forms of government, and totally independent of each other, or of the mother country. Their topography, however, can only be comprehended by employing the subdivisions and limits anciently prescribed. Of these divisions, five, namely, the vice-royalties of Peru and of New Grenada, and the captain-generalships of Guatemala, Porto Rico, and the Caraccas, are completely situated within the tor-

rid zone; the four others, namely, the viceroyalties of Mexico and Buenos Ayres, as well as the captain-generalships of Chili and the Havannah,^d which comprehended the Floridas, are partly situated without the two tropics. As the geographical latitude, however, exerts infinitely less influence over the fertility and productions of these beautiful countries than the elevation of the soil, a division, founded on the degrees of latitude, would afford no advantage to physical geography. If we merely distinguish the great masses of land, circumscribed by seas, included in the basins of rivers, or marked by some other striking feature, we shall classify the continental regions of Spanish America into three divisions; that of the north, comprising Mexico with Guatemala; the middle division, including Peru, New Grenada, and Caraccas; and, finally, that of the south, containing Paraguay, or Buenos Ayres, Chili, and the Magellanic regions. The islands of Porto Rico and Cuba will be described with the rest of the Columbian Archipelago. Florida has already been considered along with the United States.

Custom has extended to all the Spanish provinces to the north of the Isthmus, Florida excepted, the general appellation of Mexico, although, strictly speaking, these countries have no common name applicable to them all. The term *New Spain* was applied at first, in 1518, only to the province of Yucatan, where the cultivation of the fields, and the beauty of the edifices, excited the admiration of the military followers of Grijalva. Already, in 1520, Cortez extended the denomination of New Spain to the kingdom of *Montezuma*, at the same time, advising Charles V. to assume the title of Emperor. According to the researches of the Abbe Clavigero, this kingdom, which, on the authority of Solis, stretched from Panama to New California, was bounded on the eastern coasts by the rivers Guasacualco and Tulpan, and on the western, by the plains of Soconusco, and by the port of Zacatula. It thus embraced the present intendancies of Vera Cruz, Oaxaca, Puebla, Mexico, and Valladolid, with a surface of eighteen or twenty thousand square leagues. Even the name of Mexico is of Indian origin. It signifies, in the Aztec language, the habitation of the god of war, called Mexitli, or Huitzilpochtli. It appears, nevertheless, that before the year 1530, the city was more commonly denominated *Tenochtitlan*. The appellation *Anahuac*, which must not be confounded with the preceding names, designated, before the conquest, all the tract of country contained between the fourteenth and twenty-first degrees of latitude. Independently of the Aztec empire of Mon-

^a The N. boundary of Mexico, or that between the late Spanish territories and the U. States, W. of the Rocky Mountains, is in 42° N.—P.

^b At present, 1824, they are computed to exceed seventeen millions.

^c Since 1810, when the revolutionary movements commenced.—P.

^d The island of Cuba is situated within the tropic.—P.

tezuma, the little republics of Tlaxcallan, or Tlascala, and of Cholollan, or Cholula, the kingdom of Tezcuco, or Acolhoacan, and that of Mechoacan, which comprehended a part of the intendency of Valladolid, belonged to the plateau, or table land, of the ancient Anahuac.^a

The vast expanse of country over which the Viceroy of Mexico exercised his supreme military power, which is designated, in general, under the name of *New Spain*, and is contained within the parallels of the thirty-eighth^b and tenth degrees of north latitude, included two great distinct governments: 1. The captain-generalship of *Guatemala*, which comprehended the governments of Costa Rica and Nicaragua, with the provinces of Honduras, Vera Paz, Chiapa, and Guatemala; 2. The viceroyalty of *Mexico*, or of New Spain properly so called, comprising Mexico proper, and the eastern and western interior provinces, or *provincias internas*.^c The captain-general of Guatemala, considered as a governor, having been only slightly subordinate to the Viceroy of New Spain, M. Humboldt separates Guatemala from Mexico; of which, in that case, the southern limits touch the shores of the great ocean, to the east of the port of Tehuantepec, near to the bar of Tonalá, and extend to the coasts of the Caribbean sea, near the bay of Honduras.

Exclusively of Guatemala, the kingdom of New Spain extends from the sixteenth to the thirty-eighth degree of latitude, over a space of 610 leagues in length, in a direction from south-east to north-west. The breadth, which, under the thirtieth parallel, from the Red River (*Rio Colorado*) in the province of Texas, to the island of Tiburon, on the coasts of the intendency of Sonora, is 364 leagues, goes on continually decreasing to the isthmus of Tehuantepec, where it is only forty-five leagues from sea to sea.

The limits of New Spain to the north and east are abundantly vague, and difficult to determine. So late as 1770, the Cardinal Lorenzana asserted, in a work published at Mexico, that New Spain, in the remotest confines of the bishopric of Durango, perhaps bordered on Tartary and Greenland; namely, by the Californias on Tartary, and by New Mexico on Greenland.^d For a long time the Viceroys of Mexico looked upon the whole north-west coast of America as a dependency of their government, and even very recently directed an official visit to be made to the Russian colonies of the peninsula of Alaska. The English establishment at Nootka Sound, still more closely approaching the Spanish colonies, led to strong remonstrances. Nevertheless, after a great deal of discussion, the court of Madrid appeared to find its advantage in leaving unmolested this barrier against the invasions of Russia in that direction, by adopting Cape Mendocino, to the north of St. Francisco, as the definitive boundary. Nothing, however, has yet been able to secure Spain against the enterprising spirit of the United States, which seem desirous of embracing the whole of North America in their confederation. Since the acquisition of Louisiana, the inhabitants of these new republics actively press forward their civilization towards the Missouri, and approach the

shores of the great ocean by the beautiful river Columbia. To the east, the maps published in the United States mark the river Sabine as the boundary; but the Congress at Washington openly endeavours to confine this limit of Mexico to the basin of the Rio Bravo del Norte.^{e f}

Since the new administration, introduced in 1776 by Don Galvez, minister of the Indies, New Spain has been divided into twelve intendancies, and three provinces.^{g h}

Of these fifteen divisions there are:

A. In the interior, to the north,

1. The province of *New Mexico*, extending along the Rio del Norte.

2. The intendency of *New Biscay*, to the south-west of the Rio del Norte, upon the central plateau.

B. Upon the great Pacific Ocean, to the north-west,

3. The province of *New California*;

4. The province of *Old California*;

5. The intendency of *Sonora*.

C. Towards the Gulf of Mexico, to the north-east,

6. The intendency of *San Luis Potosi*, comprising the provinces of *Texas and Cohahuila*, the colony of New Santander, the new kingdom of Leon, and, finally, the districts of Charcas, Altamira, Catorce, and Ramos, which compose the intendency of San Luis, properly so called.

These six territories, almost entirely included in the temperate zone, contain a total of 677,000 souls, in an extent of 82,000 square leagues; which gives a proportion of eight inhabitants to a square league.

To the south of the tropic we find,

D. in the middle region,

7. The intendency of *Zacatecas*;

8. ————— of *Guadalajara*;

9. ————— of *Guanaxuato*;

10. ————— of *Valladolid*;

11. ————— of *Mexico*;

12. ————— of *Puebla*;

13. ————— of *Vera Cruz*;

E. At the south-eastern extremity,

14. The intendency of *Oaxaca*;

15. That of *Merida* or *Yucatan*.

These nine intendancies, situated under the torrid zone, contain a population of 5,160,000 souls, dispersed over a surface of 36,500 square leagues, or 141 inhabitants to every square league. But four-fifths of this population are concentrated upon the ridge of the Cordillera, or on plateaus, the elevation of which above the sea equals in height the pass of Mount Cenis.

According to the ancient division, still very much in use in the country, New Spain formed, 1. *The kingdom of Mexico*; 2. *The kingdom of New Galicia*; 3. *The new kingdom of Leon*; 4. *The colony of New Santander*; 5. *The province of Texas*; 6. *The province of Cohahuila*; 7. *The province of New Biscay*; 8. *The province of Sonora*; 9. *The province of New Mexico*; 10. *The two Californias, or the provinces of Old and New California*.

The kingdom of Mexico embraced the present intendancies of Guanaxuato, Valladolid, or Mechoacan, Mexico,

trapezium of 47,469 square leagues. Humboldt's Map of New Spain, in Tab. Pol.

^f The boundary between the U. States and the Spanish territories was definitively settled by the treaty of 1821. See page 210.

^g A. de Humboldt, t. II. p. 73, &c.

^h The language of the following pages is adapted to the political state of Mexico previous to its independence.—P.

^a Clavigero, Storia Antica del Messico, t. IV. p. 265.

^b The northern boundary, by the treaty with the United States (1821), is in 42° N.—P.

^c A. de Humboldt, t. I. p. 216.

^d Ibid. t. II. p. 84.

^e 485 miles of coast to the south. It enters the gulf in a south-east direction; Sabine River in a course directly south; thus leaving a disputed

Puebla, Vera-Cruz, Oaxaca, and Merida, with a portion of the intendency of San Luis Potosi: it consisted, therefore, of more than 27,000 square leagues, and contained nearly 4,500,000 inhabitants. The kingdom of New Galicia extended over more than 14,000 square leagues, and its population consisted of nearly a million of inhabitants. It comprised the intendancies of Zacatecas, and Guadalajara, as well as a small part of that of San Luis Potosi.^a

Another division equally ancient, is that which distinguishes *New Spain*, properly so called, from the *provincias internas*; that is to say, those provinces situated in the interior of the continent, although, with regard to the capital, they are exterior. To the latter belong all that is to the north and north-west of the kingdom of New Galicia, except the two Californias, consequently, the little kingdom of Leon, the colony of New Santander, Texas, New Biscay, Sonora, Cohahuila, and New Mexico. The "*provincias internas del Vireynato*,"^b which comprise 7814 square leagues, are distinguished from the "*provincias internas de la comandancia de Chihuahua*,"^c erected into captain-generalships in 1779. These latter contain 53,375 square leagues. Of the twelve new intendancies, there are three situated in the internal provinces; namely, those of Durango, Sonora, and San Luis Potosi. It must be remarked, nevertheless, that the intendant of San Luis is not directly subject to the Viceroy, except for Leon, Santander, and the districts of Charcas, Catorce, and Altamira, in the vicinity of his residence. The governments of Cohahuila, and of Texas, also form a part of the intendency of San Luis Potosi, but they appertain directly to the "*comandancia general*"^d of Chihuahua.

From this it results that the whole of New Spain is divided into,

A, provinces subject to the Viceroy of New Spain, containing 59,103 square leagues, with 5,477,900 inhabitants, and comprehending the two Californias, and the intendancies of Mexico, Puebla, Vera Cruz, Oaxaca, Merida, Valladolid, Guadalajara, Zacatecas, Guanajuato, and San Luis Potosi, with the exception of Cohahuila, and Texas.

B, into provinces subject to the commandant-general of the internal provinces, comprehending a space of 59,375 square leagues, and containing a population of 359,200 inhabitants, and comprehending the intendancies of Durango, and Sonora, and the provinces of New Mexico, Cohahuila, and Texas.

The grand total is 118,478 square leagues, and 5,837,100 inhabitants.^e In consequence of recent contests with the United States of America, the systematic encroachments of which had given just alarm to Spain, the military government of the internal provinces, before this period intrusted to the governor of Chihuahua, had been confided to two commandants-general. The western internal provinces, namely, Sonora, Durango, or New Biscay, New Mexico, and the Californias, were then distinguished from the eastern internal provinces; that is to say, from Cohahuila, Texas, the colony of New Santander, and the new kingdom of Leon. These new commandants-general, as

^a A. de Humboldt, t. II. p. 81, &c.

^b Internal provinces of the Viceroyalty.

^c Internal provinces of the government of Chihuahua.

^d General government.

^e Or rather was so in 1805; at present they exceed 8,000,000, as will appear in the following book.

^f The total of the population in the table is 6,174,200. The above remark on the total population is not found in the original.—P.

well as the former one, were considered as chiefs of the administration of finances in the two intendancies of Sonora and Durango, and in the provinces of New Mexico, Texas, and Cohahuila. With regard to Leon, and New Santander, they depended on the commandant no farther than what regarded the military defence.

The present troubles have, in part, overturned these administrative divisions; but it is still indispensable, as we have said, to be acquainted with the former complicated arrangement.

The following table indicates, in a more particular manner, the distribution of the population, and the very unequal proportion which it bore with the superficial extent of the intendancies, when the total was 5,837,100.^f Each of the estimates must now be increased in the ratio of 5,837,100 to 8,000,000.^g

Extent in Square Leagues.		Population.		Inhabitants per Square League.	
San Luis Potosi	27,821	Mexico ^b	1,911,800	Guanajuato . . .	568
Sonora . . .	19,143	Puebla . . .	813,300	Puebla . . .	301
Durango . . .	16,873	Guadalajara . .	630,500	Mexico . . .	255
Guadalajara . .	9,612	Oaxaca . . .	534,800	Oaxaca . . .	120
Merida . . .	5,977	Guanajuato . . .	517,300	Valladolid ^k . . .	109
Mexico . . .	5,927	Merida . . .	465,700	Merida . . .	81
Oaxaca . . .	4,447	Valladolid ^l . . .	376,400	Guadalajara . .	66
Vera Cruz . . .	4,141	San Luis Potosi .	334,000	Zacateca . . .	65
Valladolid . . .	3,447	Durango . . .	159,700	Vera Cruz . . .	38
Puebla . . .	2,696	Vera Cruz . . .	156,000	San Luis Potosi .	12
Zacatecas . . .	2,355	Zacatecas . . .	153,300	Durango . . .	10
Guanajuato . . .	911	Sonora . . .	121,400	Sonora . . .	6

Casting a general glance over the whole surface of Mexico, we find that two-thirds of it are situated under the temperate, and the remaining third under the torrid zone. The first part comprehends a surface of 82,000 square leagues. It includes the *provincias internas*; not only those that are subject to the immediate administration of the viceroy of Mexico, such as the new kingdom of Leon, and the province of New Santander; but also those governed by a particular commandant-general,¹ such as the intendancies of Durango and of Sonora, and the provinces of Cohahuila, Texas, and New Mexico.^m On the one hand, small portions of the northern provinces of Sonora, and of New Santander, pass beyond the tropic of Cancer; and on the other, the southern intendancies of Guadalajara, Zacatecas, and San Luis de Potosi, extend a little to the north of this boundary. Nevertheless, in consequence of a concurrence of various causes, and local circumstances, more than three fifths of the 36,000 square leagues, situated under the torrid zone, enjoy a cold or moderate temperature, rather than a burning heat. The whole interior of the viceroyalty of Mexico, especially the interior of the country comprised under the ancient denominations of Anahuac, and of Mechoacan, and in all probability, even the whole of New Biscay, form one immense elevated plateau, from 6500 to 8200 feetⁿ above the level of the neighbouring seas; while, on the contrary, in Europe, those elevated districts that present the appearance of plains, such as the plateaus of Auvergne, Switzerland, and Spain, scarcely rise higher than from 1300 to 2600 feet^o above the ocean.

^g That is, on the supposition that the increase has been equal in all the intendancies.—P.

^h 1,511,800, and ⁱ 476,400, in Humb. Ess. Pol. II. 280.—Tr.

^k 138 if population is 476,400.

^l The commandant-general of Chihuahua.

^m A. de Humboldt, t. I. p. 265.

ⁿ "2,000 to 2,500 metres."

^o "400 to 800 metres."

The chain of mountains that forms the plateau of Mexico, appears, on the slightest inspection of a geographical map, to be precisely the same which, under the name of the Andes, traverses the whole of South America. When examined, nevertheless, in a physico-geographical point of view, the structure of this chain differs very much to the south and north of the equator. In the southern hemisphere, the Cordillera is every where cleft and interrupted by crevices, that resemble open veins, which could not be filled up by heterogeneous substances. If elevated plains be met with, as in the kingdom of Quito, and the parish of Pastos, they ought rather to be considered as high longitudinal valleys, bounded by two branches of the great Cordillera of the Andes. In Mexico, it is the ridge itself of the mountains that constitutes the plateau. In Peru, the highest peaks approach to form the central summit of the Andes.^a In Mexico, these same peaks now become of less colossal dimensions, but still from 16,000 feet to 17,700 feet^b in height, are either scattered over the plateau, or ranged in lines, which bear no relation of parallelism to the general direction of the Cordillera. In Peru, and in the kingdom of New Grenada, numerous transverse valleys, of which the perpendicular depth is sometimes 4600 feet,^c prevent the inhabitants from travelling in any other manner than on horseback, or on foot, or being carried on the backs of the Indians. In the kingdom of New Spain, on the contrary, carriages roll, without obstruction, from the capital of Mexico to Santa-Fé, a distance of above 500 leagues.

The length of the table-land, comprehended between the latitudes of 18° and 40°, is equal to the meridional distance of Lyons from the tropic of Cancer, a line which crosses the great desert of Africa. This extraordinary plateau appears insensibly to decline towards the north, especially from the town of Durango, situated in New-Biscay, at 140 leagues from Mexico. This slope, contrary to the direction of the rivers, would certainly appear very improbable, if it were not admitted by the learned and judicious traveller, to whom we are indebted for almost every thing precise, exact, and interesting, respecting these countries. We must take for granted, therefore, that the mountains to the north of Santa-Fé, rise abruptly to form the very elevated ridges and table-lands, from which descend the Missouri and its tributary streams.

Of the four plateaus situated round the capital of Mexico, the first, which comprehends the valley of Toluca, is 8530 feet in height;^d the second, or the valley of Tenochtitlan, is 7460 feet;^e the third, or the valley of Actopan, 6553 feet;^f and the fourth, or the valley of Istla, is elevated 3343 feet.^g These four basons differ as much from each other in climate, as in elevation above the level of the ocean. Each of them is adapted to a different species of cultivation. The last, and least elevated, is suitable for the growth of the sugar-cane; the third, for that of cotton; the second, for producing the wheat of Europe; and, on the first, there are plantations of agaves,^h which may be considered as the vineyards of the Aztec Indians.

If this configuration of the surface singularly favours, in

the interior of New Spain, the conveyance of merchandise, navigation, and even the construction of canals, nature opposes great difficulties to the communication between the interior of the kingdom and the coasts, which, rising from the sea in the form of a rampart, every where present an enormous difference of level, and of temperature. The eastern declivity, more especially, is rapid, and of difficult access. In travelling from the capital to Vera Cruz, it is necessary to proceed sixty nautical leagues before a valley can be met with, of which the bottom is lower than 3281 feetⁱ above the level of the sea. Of the eighty-four leagues that are reckoned from Mexico to this port, fifty-six are occupied by the great plateau of Anahuac; the remainder of the road is nothing but one continued and painful descent. It is the difficulty of this descent that renders the conveyance of the flour of Mexico to Vera Cruz so expensive, and prevents it from rivalling, in Europe, the flour of Philadelphia. In the road to Acapulco, on the great ocean, the traveller reaches the temperate regions in less than seventeen leagues distance; after which, he has incessantly to ascend and descend as far as the sea.

The Cordillera of the Andes, which traverses the Isthmus of Darien, at one time approaches the Pacific Ocean, at another, the coasts of the Gulf of Mexico. In the kingdom of Guatemala, the crest of these mountains, bristling with volcanic cones, stretches along the western coast from the lake of Nicaragua as far as the bay of Tehuantepec; but, in the province of Oaxaca, between the sources of the rivers Chimalapa and Quatarnalco, it occupies the centre of the Mexican isthmus. Between the 18½° and 21° of latitude, in the intendancies of Puebla and Mexico, from Mixteca to the mines of Zimapan, the Cordillera runs from south to north, and approaches the eastern coast. It is in this part of the great plateau of Anahuac, between the capital of Mexico and the little towns of Cordova and Xalapa, that a group of volcanic mountains appear, which rival in elevation the highest peaks of the continent. Humboldt measured the principal ones. *Popoca-Tepell*, that is to say, the Smoking Mountain, called by the Spaniards the great volcano,^k is 2764 toises, or 17,968 English feet in height; the *Iztacci-Huall*, or the White Woman, the *Sierra Nevada* of the Spaniards, is 2461 toises, or 16,000 feet; the *Cittal-Tepell*, or Starry Mountain, otherwise called the *Peak of Orizaba*, is 2722 toises, or 17,697 feet; the *Nevalo de Toluca* is 2364 toises; and the *Nauhcampa-Tepell*,^l or *Cofre de Perote*, is 2097 toises,^m or 13,633 English feet.

More to the north of the nineteenth parallel, near the celebrated mines of *Zimapan* and *Doctor*, situated in the intendancy of Mexico, the Cordillera takes the name of *Sierra Madre*, in Mexican *Tepe-Suene*. Again leaving behind it the eastern part of the kingdom, it runs to the north-west, towards the towns of San Miguel el Grande and Guanajuato. To the north of this last town, considered as the Potosi of Mexico, the Sierra Madre expands to an extraordinary breadth, and shortly afterwards dividing into three branches, the most eastern one of which proceeds towards Charcas, and Real de Catorce, to lose itself

^a "Les cimes les plus élevées constituent la tête des Andes." The highest summits constitute the head [ridge] of the Andes.—P.

^b "4000 to 5100 metres."

^c "1100 metres."

^d "2600 metres."

^e "2274 metres."

^f "1906 metres."

^g "961 metres."

^h *Maguey de pulque*, a species of the American aloe (*Agave*), the juice of which, when fermented, furnishes the intoxicating liquor called *pulque*.

ⁱ "1070 metres."

^k Gran volcan.

^l Square mountain.

^m A. de Humboldt, *Tableau des Régions Equatoriales*, p. 148. Vues et Monumens, p. 233.

In the new kingdom of Leon; the western branch occupies a part of the intendency of Guadalajara. From *Bolunos* it sinks rapidly, and is extended, by Culiacan and Arispe, into the intendency of Sonora, as far as the banks of the Rio Gila. Under the thirtieth degree of latitude, however, it again acquires a considerable height in Tarahumara, near the Gulf of California, where it forms the mountains of *Pimeria Alta*, celebrated for considerable washings of gold. The third branch of the Sierra Madre, which may be looked upon as the central chain of the Mexican Andes, occupies the whole extent of the intendency of Zacatecas. It may be traced by Durango and Parral in New Biscay to the *Sierra de los Mimbres*, situated to the west of Rio Grande del Norte; and from thence it traverses New Mexico, and joins the mountains of *Las Grullas*, and the *Sierra Verde*. This mountainous country, situated under the fortieth degree of latitude, was examined, in 1777, by the Fathers Escalante and Fond. It gives rise to the Rio Gila, the sources of which approach those of the Rio del Norte. It is the crest of this central branch of the Sierra Madre which divides the waters between the Great Ocean and the sea of the Antilles. It is this of which Fidler and the intrepid Mackenzie examined the continuation, under 50° and 55° of north latitude. The map of Don Alzate^a gives the particular name of *Sierra dos Pedernales*, or the Mountain of Gun-Flints, to a part of the Sierra de Mimbres, a circumstance which seems to indicate a resemblance between the rocks of this chain and those of the Rocky Mountains.

The granite, which here appears to form, as it does every where else, the lowest stratum, appears at the surface in the little chain that borders the Pacific Ocean, and which, towards Acapulco, is separated from the mass of high country by the valley of Peregrino.^b The beautiful port of Acapulco is excavated, by the hand of nature, in granitic rocks. The same rock forms the mountains of Mixteca and of Zapoteca, in the intendency of Oaxaca.^c The central plateau, or Anahuac, appears like an enormous dike of porphyritic rocks, distinguished from those of Europe by the constant presence of hornblend, and by the absence of quartz. They contain immense deposits of gold and silver. Basalt, amygdaloid, gypsum, and Jura limestone,^d form the other predominant rocks. The strata succeed each other here in the same order as in Europe, except that sienite alternates with serpentine. The secondary rocks equally resemble those of our European countries; but, hitherto, no considerable beds of rock-salt or of coal have been discovered on the plateau of Mexico, while, on the contrary, these substances, especially the former, appear to exist in great abundance to the north of the Gulf of California, near the Lake Timpanogos.^e

The porphyry of the Sierra de Santa Rosa appears in gigantic masses, which assume extraordinary shapes, imitating the appearance of ruined walls and bastions. The masses which rise perpendicularly, and are elevated 1000 or 1300 feet^f above the surrounding plains, are called in the country *buffa*. Enormous balls, composed of concentric layers, rest on isolated rocks. These porphyries give the environs of the town of Guanajuato a singularly

romantic aspect. The porphyritic rock of Mamancheta, known in the country by the name of *los Organos de Actopan*, rises to the view in the horizon like an old tower, of which the shattered base has become narrower than the summit.^g The porphyritic traps^h in columns, which terminate the mountain of Jacal and Oyamel, are crowned with pine trees and oaks, which add a certain picturesque gracefulness to this imposing sight.ⁱ It is from these mountains that the ancient Mexicans obtained the *Itzli* or Obsidian, of which they formed their cutting instruments.

The *Cofre de Perote* is a porphyritic mountain, elevated 13,633 feet above the level of the sea, and represents an ancient sarcophagus, surmounted by a pyramid at one of its extremities.^k The basalts of La Regla, of which the prismatic columns, nine hundred and sixty-seven feet^l in height, have their central parts harder than the rest, form the native decorations of a very beautiful cascade.^m

The inhabitants of Mexico scarcely look upon volcanoes as a curiosity, so familiar are they with the effects of these colossal furnaces. Almost all the summits of the American Cordilleras contain craters. That of *Popoca-Tepetl* is said to be half a league in circumference; but, at present, it is inaccessible. The *Peak of Orizaba* is also a volcano, from which, in 1545, an eruption took place, and which continued burning for twenty years. This mountain is called by the Indians *Cital-Tepetl*, or the Starry Mountain, on account of the luminous exhalations which rise from its crater, and play round its summit, which is covered with eternal snow. The sides of these colossal cones, adorned with magnificent forests of cedar and pine, are no longer overwhelmed by eruptions, nor furrowed by torrents of burning lava. It even appears that currents of lava, properly so called, do not abound in Mexico. Nevertheless, in 1759, the plains of Jorullo, on the shores of the Pacific Ocean, formed the scene of one of the most tremendous catastrophes that the surface of the globe has ever experienced. In one single night, there issued from the earth a volcano of 1494 feet in height, surrounded by more than 2000 apertures, which still continue smoking to the present day. MM. Humboldt and Bonpland descended into the burning crater of the great volcano, no less than 258 feet in perpendicular depth, leaping over crevices which exhaled sulphuretted hydrogen in a state of combustion. After many dangers, on account of the fragility of the basaltic and sienitic lavas, they almost reached the bottom of the crater, where the air was, in an extraordinary degree, surcharged with carbonic acid.

The granitic mountains of Oaxaca do not contain any known volcano; but, more to the south, Guatemala was kept in a state of constant alarm by the vicinity of two mountains, one of which vomited fire, and the other water, and which ended at last by swallowing up this great city.ⁿ

The volcanoes continue as far as Nicaragua. Near this city is that of Momantombo. The *Omo-tepetl* shoots up its burning peak from the bosom of the lake of Nicaragua. Other volcanic mountains border the gulfs of the Pacific Ocean. The province of Costa Rica likewise contains volcanoes; and, amongst others, that of Varu, situated in the chain called Boruca.

^a In the Voyage à la Californie, of Chappe d'Auteroche.

^b Plan of the road from Vera-Cruz to Acapulco, in the Atlas of the Essay on Mexico.

^c A. de Humboldt, t. II. p. 318.

^d First sort of limestone, Alpine or mountain limestone.—P.

^e A. de Humboldt, t. IV. p. 134.

^f "300 to 400 metres."

^g A. de Humboldt, Vues et Monumens, pl. LXIV. 325 English feet high.

^h "Porphyres trapéens," greenstone porphyries.

ⁱ A. de Humboldt, Vues et Monumens, pl. LXV.

^k Id. *ibid.* pl. XXXIV. ^l "30 metres."

^m A. de Humboldt, Vues et Monumens, p. 123.

ⁿ Lorenzana, cited in the Essay on Mexico, t. I. p. 171. (Fr.)

We will not terminate this sketch of the Mexican mountains, without speaking of its celebrated mines of gold and silver, of which the annual produce, even in ordinary times, amounts to fully 22,000,000 piastres, or 4,583,333 pounds sterling.^a The gold, which forms only one twenty-second part of the whole, is found in particles or grains, in the alluvial lands of Sonora, and Pimeria Alta. It also exists in veins, in the mountains of gneiss and micaceous schistus in the province of Oaxaca. The silver appears to affect the plateau of Anahuac, and of Mechoacan. The mine of Batopilas, in New Biscay, the most northerly that has yet been wrought, has afforded the greatest quantity of native silver; while, in the others, the metal is extracted from the ores which they call *meager*, such as red, black, muriated, and sulphuretted silver; or, from argentiferous lead ore. The want of mercury, which is procured from China and Austria, is the only thing that checks the spirit of mining. The mines already known, are far from giving any indication of being exhausted. Many, undoubtedly, are yet to be discovered. A Spaniard affirms that, in the province of Texas, all the stones contain silver.^b

The elevation at which nature has deposited her immense metallic riches in New Spain, is a source of remarkable advantage to the progress of national industry. In Peru, the most considerable mines of silver are found at an immense height, very near the limit of eternal snow. In order to work these mines, men, provisions, and cattle, must be brought from a distance. Towns, situated on elevated plains, where water freezes during the whole year, and where trees no longer grow, are not calculated to form a very attractive habitation. Nothing but the hope of acquiring riches could induce any man possessed of personal liberty, to abandon the delicious climate of the valleys, and voluntarily isolate himself on the summit of the Andes. In Mexico, on the contrary, the richest mines of silver, such as those of *Guanaxuato*, *Zacatecas*, *Tasco* and *Real del Monte*, are found at the moderate elevation of from 5530 to 6562 feet.^c There the mines are surrounded by cultivated land, towns, and villages; while forests crown the neighbouring heights, and every thing, in short, facilitates the exploring of their subterraneous riches.

In the midst of the numerous mountains which nature has granted to New Spain, it suffers, in general, like the parent country, from a want of water, and of navigable rivers. The great river *Rio Bravo del Norte*, and the *Rio Colorado*, are the only rivers that merit attention, both from the length of their course, and the great mass of water which they carry to the ocean; but flowing, as they do, in the most uncultivated part of the country, it will be long before they possess any interest with regard to commerce. In all the equinoctial part of Mexico, only small rivers are met with; but their estuaries are very broad. The narrow form of the continent prevents the union of a great body of water; while the rapid declivity of the Cordillera gives rise to torrents rather than rivers. Among the small number of rivers which are found in the southern part of the country, the only ones that may one day or other become interesting for the commerce of the interior,

are, the *Rio Huasacualco* and that of *Alvarado*, both of which are to the south-east of Vera Cruz, and are calculated to facilitate the communication with the kingdom of Guatemala; the *Rio de Montezuma*, which carries the waters of the lakes and valley of Tenochtitlan to the *Rio de Panuco*, and by which, forgetting the elevation of the ground, a line of navigation has been proposed between the capital and the eastern coast; the *Rio de Zacatula*; and, in fine, the great river *Santiago*, or *Tololotlan*, formed by the union of the rivers *Leorma* and *Las Laxas*, which might convey the flour of Salamanca, of Zelaya, and, perhaps, also, that of the whole intendency of Guadalupe, to the port of San Blas, on the shores of the Pacific Ocean.

The lakes with which Mexico abounds, and the greater part of which seem annually to diminish in size, are merely the remains of those immense basins of water that appear once to have existed on the lofty and extensive plains of the Cordillera. We may notice the great lake of Chapala, in New Galicia, which covers nearly one hundred and sixty square leagues of country; the lakes of the valley of Mexico, that occupy one fourth of the surface of that valley; the lake of Pazuaro, in the intendency of Valladolid, one of the most picturesque spots on the globe; and the lake of Mexitlan, and that of Parras, in New Biscay.

The Lake of *Nicaragua* merits very particular attention in consequence of its tides, and its position between the two oceans. It is probable that its position is very elevated,^d a circumstance that would render it extremely difficult, or even useless, to carry into execution the vague project of a canal of communication, which every one has been able to dream of, but which it was reserved for M. Martin de la Bastide to publish, under the triple form of a pamphlet, a fan, and a snuff-box! M. de la Bastide, however, has only forgotten three things: He does not give us the levels of the country between the lake and the gulf of Papagayo on the western coast; he does not point out the manner of rendering navigable the river St. John on the east, interrupted as it is by numerous falls of water; and he is not aware that, during the autumn, a pestilential atmosphere interdicts all approach to the mouth of this river. Generally speaking, all the various projects for opening a communication between the Atlantic and the Pacific Ocean, are attended with this inconvenience, that the canal would not admit vessels of the size that are required for the navigation of the open sea. It would become necessary, therefore, to unload and reload their cargoes, by which the benefits arising from a canal would be reduced almost to a level with the advantages which would result from a good road, communicating with two ports on their respective seas. In fact, a road would not have the same effect as a canal, in drawing the jealous attention, and exciting the hostile encroachments of foreign powers; a danger which appears to have formerly determined Spain to forbid, on pain of death, the renewal of any plan whatever for establishing such a communication.^e It appears, nevertheless, that new researches have been recently made respecting the most favourable points for constructing a canal of communication. The isthmus of Tehuantepec, to the south of Oaxaca, presents the two rivers of Huasa-

^a According to the piastre of 1/2 employed by Humboldt, and copied here. Pol. Ess. in lib. II. chap. ix. and in vol. II. p. 527. Eng. Trans.—The translator of Humboldt's Essay, concerned in the Morning Chronicle; also, translator of Von Buch, and Memoirs of Golsoni. Mr. Black makes it 4/4½; also, Anderson, Comm. Dict. p. 472.—Tr.

^b Viagero Universal, t. XXV. p. 249.

^c "1700 to 2000 metres."

^d From its tides, and our author's own statements, (see Nicaragua, in B. LXXXV. following,) it cannot be very elevated. Ed.—Pol. Ess. I. p. 25. Eng. Tr.

^e Alcedo, Dictionario Geografico de las Indias, at the words Istmo and Attrato.

caulco and of Chimalapa, which, united together by means of a canal of seven or eight leagues in length, would open a communication between the two oceans. The river Atrato, which falls into the Gulf of Darien, to the south-east of the Isthmus of Panama, is already united by a little canal, navigable for boats in the rainy season, to the *Rio San Juan*, a stream which empties itself into the Pacific Ocean. This, perhaps, is the very spot at which the chain of the Andes is the most completely interrupted, for the canal does not appear to be considerably elevated above the level of the two seas.^a

To complete the description of the Mexican territory, we must again cast a glance over the coasts and the seas by which they are washed. The whole of the eastern or Atlantic coast of New Spain ought to be looked upon as an immense dike or wall, against which the trade-winds, and the perpetual movement of the waters from east to west, heave up the sand which the agitated ocean holds suspended. The revolving current, proceeding from the southern Atlantic Ocean, first rolls past Brazil and Guyana, and then follows the coasts of Caraccas, from Cumana to Darien. It then flows toward Cape Catoche in Yucatan, and after long whirling in eddies in the Gulf of Mexico, it issues by the Bahama Channel or Gulf of Florida, and directs its course towards the Bank of Newfoundland. The sand accumulated by the eddying whirl of the waters from the Peninsula of Yucatan to the mouths of the Rio del Norte and the Mississippi, insensibly contracts the basin of the Gulf of Mexico, by adding to the breadth of the continent. The rivers that descend from the Sierra Madre to empty themselves into the sea of the Antilles, contribute not a little to fill up and elevate the bottom. The whole of the eastern coast of New Spain, from 18° to 26° of latitude, is obstructed by bars. Only vessels drawing little water^b can cross one of these bars without running the risk of touching. Nevertheless, these obstacles, so formidable to commerce, facilitate, at the same time, the defence of the country against the ambitious projects of a European conqueror.

Another very serious inconvenience is common both to the eastern and western coasts of the Isthmus. Violent storms render it almost impossible, during several months, to effect a landing, and thus prevent almost all navigation along these shores. The north-west winds, denominated *los nortes*, blow in the Gulf of Mexico from the autumnal to the vernal equinox. In September and October they are generally mild, and are at their greatest height in the month of March. On the western coast, the navigation is very dangerous in the months of July and August, dreadful tornadoes blowing at that time from the south-west. At this season, and even in September and October, the anchorage at San Blas, Acapulco, and all the ports of the kingdom of Guatemala, is exceedingly unsafe. During the favourable season, from October till May, the tranquillity of the ocean is again interrupted in these latitudes by the furious winds from the north-east and north-west, known by the names of *Papagayo* and *Tehuantepec*.

After this sketch of the general distribution of the surface, we perceive that the coasts of New Spain are almost the only part of it that enjoys a warm climate, so as to be

proper for supplying those productions which are the object of commerce with the Antilles. The intendancy of Vera Cruz, with the exception of the plateau which extends from Perote to the Peak of Orizaba, Yucatan, the coasts of Oaxaca, the maritime provinces of New Santander and Texas, the new kingdom of Leon, the province of Cohahuila, the uncultivated country called *Bolsón de Mampimi*, the coasts of California, the western part of Sonora, Cinaloa, and New Galicia, the southern borders of the intendancies of Valladolid, Mexico, and Puebla, are tracts of country which are low, and only interrupted by inconsiderable eminences. The mean annual temperature of these plains, as well as of the ravines that are situated under the tropics, and the elevation of which above the ocean does not exceed 967 feet, is from 77° to 79° of Fahrenheit's thermometer; that is to say, from 17° to 19° F.^d greater than the mean temperature of Naples.^e These fertile regions, denominated by the natives *Tierras Calientes*, that is to say, hot countries, produce sugar, indigo, cotton, and bananas, in abundance. When, however, Europeans, not accustomed to the climate, reside there for a long time, and when they assemble together in populous towns, these countries become subject to the yellow fever, known under the name of the black vomit, or *vomito prieto*. The port of Acapulco, and the valleys of Papagayo and Peregrino, may be classed among those portions of the globe where the air is constantly the hottest and most unhealthy. On the eastern coast of New Spain, the great heats are tempered for some time, when the north wind brings strata of cold air from Hudson's Bay, towards the parallels of the Havannah and Vera Cruz. These impetuous winds blow from the month of October to that of March. Very often they cool the air to such a degree that, near Havannah, the thermometer descend to 33° F. and at Vera Cruz, to 61°, a very remarkable depression of the mercury for countries situated under the torrid zone.

On the declivity of the Cordillera, at the height of from 4000 to 5000 feet,^f there constantly reigns the genial temperature of spring, which does not vary more than eight or nine degrees. Intense heat, and excessive cold, are equally unknown. This region is called by the natives *Tierras Templadas*, or, Temperate Countries, in which the mean heat of the whole year is from 68° to 70° F. This is the delicious climate of Xalapa, Tasco, and Chilpaningo, three towns celebrated for the extreme salubrity of their climate, and for the abundance of the fruit trees that are cultivated in their environs. Unfortunately this medium elevation of 4200 feet^g is almost the same as that at which the clouds float above the plains adjacent to the sea; for, in consequence of this circumstance, these temperate regions, situated half way up the mountains, are often enveloped in dense fogs.

The third zone, designated by the appellation of *Tierras Frias*, or, Cold Countries, comprehends the plateaus that are higher than 7200 feet^h above the level of the ocean, and of which the mean temperature is 63° F. and under. In the capital of Mexico, the centigrade thermometer has been seen some degrees below the freezing point; but this phenomenon is very rare. More commonly the winters are as mild there as at Naples. In the

^a A. de Humboldt, Mexico, liv. I. chap. ii.

^b "Only vessels which draw less than 32 centimetres of water."

^c "300 metres."

^d 8° to 9° centigrade.

^e A. de Humboldt, t. I. p. 285.

^f "1200 to 1500 metres."

^g "1300 metres."

^h "2200 metres."

coldest season, the medium heat of the day is from 55° to 58° F. In summer, the thermometer in the shade does not rise above 76° F. The most ordinary mean temperature that prevails over the whole of the great plateau of Mexico is 63° F. which is equal to the temperature of the air at Rome; and the olive-tree is here cultivated with success. This same plateau, however, according to the classification of the natives, belongs to the *Tierras Frias*. Thus the expressions *cold* and *hot* have no absolute signification. But those plateaus that are higher than the valley of Mexico, those, for example, whose absolute height exceeds 8200 feet,^a although situated under the tropics, have a climate which, even to an inhabitant of the north, appears rude and disagreeable. Of this description are the plains of Talma, and the heights of Guchilaqua, where, during a great part of the day, the air never becomes hotter than from 43° to 46° F. The olive here bears no fruit.

All the regions denominated cold enjoy a mean temperature of from 52° to 56° F. equal to that of France and Lombardy. Still, vegetation there is much less vigorous, and the plants of Europe do not grow with the same rapidity as in their native soil. The winters, at an elevation of 8200 feet,^b are not extremely severe. It must, however, be admitted, that, in summer, the sun never heats the rarefied air of these plateaus sufficiently to accelerate the expansion of flowers, and to bring the fruit to perfect maturity. It is this unvarying equability of temperature, this absence of a fervent but ephemeral heat, which impresses a peculiar character on the climate of the high equinoctial regions. Accordingly, the cultivation of many vegetables is less successful on the ridge of the Mexican Cordilleras, than in the plains situated to the north of the tropic, although the mean temperature of these latter is often lower than that of the plateaus comprised between 19° and 22° of north latitude.

In the equinoctial region of Mexico, and even as far as the 23th of north latitude, only two seasons are known; that, namely, of the rains, which commences in the month of June or July, and ends in September or October: and the dry season, which continues eight months, from October, namely, till the end of May. The formation of clouds, and the precipitation of the water dissolved by the air, generally begin on the eastern slope of the Cordillera. These phenomena, accompanied by loud electrical explosions, extend in succession from east to west, in the direction of the trade-winds; so that the rain falls fifteen or twenty days later on the central plateau than at Vera Cruz. Sometimes, in the months of December and January, rain, mixed with sleet and snow, is seen falling on the mountains, even at an absolute elevation of less than 6532 feet.^c These rains, however, continue only a few days; and, cold as they are, they are looked upon as highly beneficial to the vegetation of wheat, and the growth of pastures. From the parallel of 24° to that of 30°, the rains fall less frequently, and continue a shorter time. Fortunately, the snow, of which there is a very considerable quantity beyond 26° of latitude, compensates for this scarcity of rain.^d

In France, and in the greater part of Europe, the employment of land, and the agricultural divisions, depend almost exclusively on geographical latitude; the configuration of the country, the proximity of the ocean, or other local circumstances, exerting only a feeble influence over the temperature. On the other hand, in the equinoctial regions of America, the climate, the nature of the productions, the aspect, and general features of the country, are modified almost entirely by the elevation of the soil above the level of the sea. In latitudes 19° and 22°, sugar, cotton, and especially cacao and indigo, do not afford an abundant crop at a greater elevation than 2000 or 2600 feet.^e European wheat occupies a zone which, on the slope of the mountains, generally commences at the height of 4585 feet, and ends at 9752 feet.^f The banana, that most useful plant, which constitutes the principal nourishment of all the inhabitants of the tropics, almost entirely ceases to bear fruit above the level of 5000 feet.^g The oaks of Mexico grow only between 2500 and 10,078 feet^h of elevation. The pine descends towards the shores of Vera Cruz, only as low as 6068 feet;ⁱ but it must also be added, that they do not rise higher, towards the line of perpetual snow, than 13,123 feet.^k

The provinces denominated *provincias internas*, and situated in the temperate zone, but especially those comprehended between 30° and 38° of latitude, possess, with the rest of North America, a climate essentially different from that which prevails under the same parallels on the old continent: it is particularly distinguished by a striking inequality in the temperature of the different seasons. Winters of a German rigour succeed to summers that vie with those of Naples and Sicily. But this difference of temperature is much less striking in those parts of the new continent which approach the Pacific Ocean, than in the more eastern regions.

If the plateau of New Spain is singularly cold in winter, its summer temperature is far higher than could be inferred from the thermometrical observations made by Bouguer and La Condamine, in the Andes of Peru. It is to this heat, and to other local causes, that we must attribute the aridity which incommodes these beautiful countries. In fact, the interior, particularly an extensive portion of the plateau of Anahuac, is completely stripped of vegetation. The enormous mass of the Mexican Cordillera, and the immense extent of its plains, produce a reflection of the solar rays, which, at an equal height, is not observed in other mountainous countries of a more unequal surface. Independently of this circumstance, the land is so high that its mere elevation, from the consequently diminished atmospheric pressure which is exerted on fluids by the rarefied air, must sensibly augment the evaporation that takes place from the surface of these great plateaus. On the other hand, the Cordillera is not sufficiently elevated for any considerable number of its peaks to enter within the limit of perpetual snow. This snow, at the period of its minimum, in the month of September, does not descend, under the parallel of Mexico, lower than 14,465 feet;^m but in January, its boundary is met with as

^a "2500 metres."

^b "2500 metres."

^c "2000 metres."

^d A. de Humboldt, t. III. p. 73.

^e "300 to 800 metres."

^f "1400 to 3000 metres."

^g "1550 metres."

^h "800 to 3100 metres."

ⁱ "1850 metres."

^k "4000 metres."

^l A. de Humboldt, t. I. p. 230.

^m "4500 metres."

low as 12,139 feet.^a To the north, beyond 20° latitude, and, especially, from 22° to 30°, the rains, which continue only during the months of June, July, August, and September, are by no means frequent in the interior of the country. The ascending current, or column of heated air that rises from the plains, prevents the clouds from being precipitated in the form of rain, and thus saturating the dry saline earth, almost destitute of shrubs. There are few springs in the mountains, which, in a great measure, are composed of porous amygdaloid and shattered porphyries. Instead of collecting in little subterraneous basins, the water filters through the earth, and loses itself in the crevices which have been opened by ancient volcanic convulsions. This water issues only at the base of the Cordillera. On the coasts, it forms a great number of rivers, the course of which, however, is very short.

The aridity of the central table land, and the want of trees, are very injurious to the working of the mines; these evils have sensibly increased since the arrival of Europeans in Mexico. Not only have the conquerors destroyed without planting, but by artificially drying up extensive tracts of land, they have occasioned a still more important evil. The muriates of soda and of lime, the nitrate of potash, and other saline substances, cover the surface of the soil. They have spread themselves with a degree of rapidity which the chemist feels it difficult to explain. In consequence of this abundance of salts—these effluences so injurious to cultivation—the table land of Mexico resembles, in some places, that of Thibet, or the saline steppes of central Asia.

Happily, this aridity of soil prevails only on the most elevated plains. A great part of the vast kingdom of New Spain may be classed with the most fertile countries of the earth. The declivity of the Cordillera is exposed to humid winds, and to frequent fogs; and vegetation, promoted by these aqueous vapours, displays an imposing degree of beauty and luxuriance. The truth is, the humidity of the coasts, favouring the putrefaction of a prodigious mass of organic substances, proves the cause of the diseases to which Europeans, and others not habituated to the climate, are exposed: for, under the burning sky of the tropics, the unhealthiness of the climate is almost invariably a sure indication of extraordinary fertility in the soil. Nevertheless, with the exception of some sea-ports, and of some deep and humid valleys, where the natives suffer from intermittent fevers, New Spain ought to be considered as a singularly healthy country. A dry and uniform degree of heat is very favourable to longevity. At Vera Cruz, in the midst of the epidemic attacks of the yellow fever (black vomit,) the natives, and those strangers who have been already some years habituated to the climate, enjoy the most perfect state of health. In general, the

coasts and arid plains of Equatorial America ought to be looked upon as healthy, notwithstanding the intense heat of the sun, the perpendicular rays of which are reflected from the soil.

Vegetation varies with the temperature, from the burning shores of the ocean, to the icy summits of the Cordilleras. In the hot region, as high as 1200 feet,^b the fan-leaved palms, the *miraguama* and *pumos* palms, the white *Oreodoxa*, the *Tournefortia velutina*, the *Cordia gerascanthus*, the willow-leaved *Cephalanthus*,^c the *Hyptis bursata*,^d *Salpianthus arenarius*, *Gomphrena globosa*, pinnated calabash tree,^e or *Crescentia pinnata*, the *Podopterus Mexicanus*, willow-leaved bignonia,^f *Salvia occidentalis*, *Perdicium Havanense*, *Gyrocarpus*, *Leucophyllum ambiguum*, *Gomphia Mexicana*, *Panicum divaricatum*, *Bauhinia aculeata*, *Hamatrylon radiatum*, *Hymenaea courbaril*, *Sclis retusis*, *Swietenia Mexicana*, and the sumac-leaved *Malpighia*,^g predominate in the spontaneous vegetation. On the confines of the temperate and the torrid zone are cultivated the sugar-cane, and the cotton, cacao and indigo plants; but they rarely ascend above the elevation of 1800 or 2400 feet.^h The sugar-cane, however, prospers well in the sheltered valleys, at an elevation of 6000 feetⁱ above the level of the sea. The banana tree extends from the shores of the sea, to a height of 4350 feet.^k The temperate region, from 1200 to 6600 feet^l of elevation, presents the *Liquidambar styraciflua*, *Erythroxylon Mexicanum*, *Aralia digitata*, *Cnicus Pazcuarensis*, *Guardiola Mexicana*, *Tagetes tenuifolia*, *Psychotria pauciflora*, *Ipomœa Cholulensis*, *Convolvulus arborescens*, *Veronica Xalapensis*, *Globularia Mexicana*, stachys of Actopan,^m *Salvia Mexicana*, *Vitex mollis*, thick-flowered arbutus,ⁿ *Eryngium protectorum*, *Laurus Cervantesii*, willow-leaved daphne,^o *Fritillaria barbata*, *Yucca spinosa*, *Cobœa scandens*,^p yellow sage;^q four varieties of Mexican oaks, commencing at an elevation of 2820 feet, and ending at 9720;^r the mountain yew,^s and the corrugated angular *Banisteria*. In the cold region, at a height of from 6600 to 14,100 feet,^t we meet with the thick stemmed oak (*Quercus crassipes*), the Mexican rose, the alder, which disappears at the height of 11,100 feet,^u the wonderful *Cheirostemon platanoides*, of which we shall speak further on, the *Krameria*, the *Valeriana ceratophylla*, the *Datura superba*, the cardinal sage,^v the dwarf potentilla,^w the myrtle-leaved arbutus,^x the *Coloneaster denticulata*,^y and the Mexican strawberry. The pines, which commence in the temperate zone at the height of 5700 feet, disappear in the cold region at 12,300 feet.^z Thus the *coniferous trees*, unknown in South America, here terminate, as they do in the Alps and Pyrenees, the scale of vegetation in the larger plants. At the very limit of perpetual snow, we find the *Arenaria bryoides*, the *Cnicus nivalis*, and the *Chelone gentianoides*.^{aa} We shall be able

^a "3700 metres."

^b "200 toises."

^c *C. salicifolia*.

^d "H. boarrelé." *H. tomentosa*? See Humboldt, Synopsis Plantarum, II. p. 93.—P.

^e "Calabashier pinné." See p. 269.

^f "P. à feuilles d'osier." *B. viminalis*? See Humboldt, Syn. Plant. II. p. 233.—P.

^g *Byrsnima colimifolia*. Humboldt.

^h "300 to 100 toises."

ⁱ "1000 toises."

^k "725 toises."

^l "200 to 1100 toises."

^m *S. hirsuta*.

ⁿ *A. densiflora*.

^o *D. salicifolia*.

^p Persoon, Syn. I. p. 185.

^q *Salvia leuca*.

^r "470 to 1620 toises."

^s *Taxus montana*.

^t "1190 to 2350 toises."

^u "1850 toises."

^v *Salvia fulgens* (*S. cardinalis*.) See Humboldt, Syn. Plant. II. p. 79.

^w *P. candelarius*, var. *β nana*.

^x *A. mytilloides* (*Vaccinium stamineum*.) See Humboldt, Syn. Plant. II. p. 321.

^y "Aurier denté."

^z "950 to 2050 toises."

^{aa} A. de Humboldt, Prolegomena in Nov. Spec. Plant. p. 40, 41. Idem, Mexico, p. 111, chap. ix. Idem, Tab. de la Geog. des Plantes.

to add a greater degree of interest to this dry nomenclature, when M. Humboldt has completed the botanical part of his vast and learned work.

Among the Mexican vegetables that furnish abundant alimentary supplies, the banana occupies the first rank. The two species, called the *Platano-arton*, and *Dominico*,^a appear to be indigenous; the *camburi*, or *Musa sapientum*, has been brought thither from Africa. One single cluster of bananas often contains from 160 to 180 fruits, and weighs from 60 to 80 pounds. A piece of land of 120 yards^b of surface, easily produces 4000 pounds weight^c of fruit, whilst the same extent will scarcely produce more than thirty pounds weight of wheat, or eighty pounds of potatoes. The manioc occupies the same region as the banana. The cultivation of maize is still more extended. This indigenous vegetable^d succeeds on the sea coast, and in the valleys of Toluca, at the height of 8400 feet^e above the ocean. Maize commonly produces in the proportion of 150 to 1. It forms the principal nourishment both of men and animals. Wheat, rye, barley, and the other cerealia of Europe, are cultivated nowhere but on the plateau in the temperate region. Wheat commonly produces at the rate of twenty-five or thirty for one. In the coldest region, they cultivate the potato, originally from South-America, the *Tropæolum esculentum*, a new species of *nasturtium* or Indian cress, and the *Chenopodium quinoa*, the seeds of which are an equally agreeable and healthy aliment. In the temperate and cold regions we also meet with the oca (*Oxalis tuberosa*);^f the sweet potato and the yam are cultivated in the hot region. Notwithstanding the abundant produce of so many alimentary plants, dry seasons expose Mexico to periodical famine.

This country produces indigenous species of the cherry-tree, apple, walnut, mulberry, and strawberry. It has likewise made the acquisition of the greater part of the fruits of Europe, as well as those of the torrid zone. The *maguey*, a variety of the agave,^g furnishes a drink denominated *pulque*, of which the inhabitants of Mexico consume a very great quantity. The fibres of the maguey supply hemp and paper; and the prickles are used for pins and nails.

The cultivation of sugar increases, although, generally speaking, it is confined to the temperate region, and, in consequence of the scanty population, the hot and moist plains of the sea coasts, so well adapted for the growth of this plant, continue in a great measure uncultivated. Ten years ago 1817, the exportation of sugar by the port of Vera Cruz amounted to 291,666*l.* sterling.^h The sugarcane here is cultivated and manufactured by free people.

In the burning climate of Guatimala, are produced the best indigo and the best cacao. The annual produce of the indigo plantations amounts to 500,000*l.*ⁱ the exportation of cacao alone is valued at 1,875,000*l.* sterling.^k It is from the Mexican language that we have derived the term *chocolatl*, of which, however, we have softened the final

^a *Musa paradisiaca* et regia.

^b "100 sq. metres."

^c French measure. "A spot of 1076 square feet yields about 4414 pounds avoirdupois [Eng. measure] of nutritive food, while the same space in wheat is calculated to yield only 30 lbs., and in potatoes not more than 90 lbs.—*Ed. Encyc.—P.*

^d *Mahis*, in the language of Hayti; *cara*, in Quichua; *tlaoili*, in Aztec.

^e "1400 toises."

^f Persoon, *Synopsis*, I. p. 518.

^g *A. Americana*, *ibid.* I. p. 379.

^h "7,000,000 francs."

ⁱ "12,000,000 francs."

syllable. The nuts of the cacao, considered in Mexico as an article of the first necessity, are used instead of small coin; six nuts being equivalent to one sou.

The intendancy of Oaxaca, is at present the only province where they cultivate on a large scale the *Nopal*, or *Cactus coccinellifer*, upon which the insect that produces the cochineal delights to feed. Cochineal is annually exported to the amount of 500,000*l.* sterling.¹^m Among the other useful vegetables, we must notice the *Convolvulus jalapa*, or true jalap, which grows naturally in the district of Xalapa, to the north west of Vera Cruz; the *Epidendrum vanilla*, which, as well as the jalap, loves the shade of the liquidambar and the amyris; the *Copaifera officinalis*, and the *Toluifera balsamum*, two trees which produce odoriferous resins, known in commerce by the name of the balsams of Capivi and of Tolu.

The shores of the Bays of Honduras and Campeachy have been celebrated, since the period of their first discovery, for their rich and immense forests of mahogany and logwood, so useful in manufactures; but the cutting and selling of which has been seized upon by the English. A species of acacia affords an excellent black dye.ⁿ The guaiacum, the sassafras, and the tamarind, adorn and enrich these fertile provinces. The pine apple is found wild in the woods; and all the shallow rocky soils are covered with different species of Aloe and Euphorbia.

The gardens of Europe have made various acquisitions of new ornaments from the Mexican flora, and, amongst others, the *Salvia fulgens*, to which its crimson flowers give so much brilliance, the beautiful dahlia, the elegant *Sisyrinchium striatum*, the gigantic *Helianthus*, and the delicate *Mentzelia*. M. Bonpland, M. Humboldt's companion, discovered a species of bombax, which produces a cotton, possessing at once the brilliance of silk, and the strength of wool.

The zoology of Mexico is imperfectly known. Many species analagous to those with which we are acquainted, differ from them, nevertheless, in important characters. Among the species that are decidedly new and indigenous, are the *coendu*, a species of porcupine; the *apaxa*, or Mexican stag; the *conepatl*, of the weasel tribe; the Mexican squirrel, and another striated species.^o The *cayopollin*^p and the Mexican wolf inhabit the forests and mountains. Among the four animals classed as dogs by the Mexican Pliny, Hernandez, one, denominated *xolo-itzcuintli*, is the wolf, distinguished by its total want of hair. The *techichi*, is a species of dog without voice, which was eaten by the ancient Mexicans. This kind of food was so necessary to the Spaniards themselves, before the introduction of cattle, that in process of time, the whole race was destroyed.^q Linnæus confounds the dumb dog with the *itzcuinte-potzoli*, a species of dog very imperfectly described, and distinguished by a short tail, a very small head, and a large hump on its back.^r The bison and the musk ox^s wander in immense herds in New Mexico and

^k "45,000,000 francs."

^l "12,000,000 francs."

^m A. de Humboldt, t. III. p. 260.

ⁿ Letter of Don Alzate, in the account of the Voyage of Chappe d'Auteroche, p. 64. (Fr.)

^o *Sciurus variegatus* [coquallin.]

^p A species of opossum.

^q Clavigero, *Storia di Messico*, t. I. p. 73.

^r Hernandez, *Hist. Quadrup. Nov. Hisp.* c. 20—23.

^s The musk ox is found only in the extreme northern parts of North America.—P.

New California. The elks of the latter province, according to the testimony of Clavigero, are sufficiently strong to have been employed in dragging a heavy carriage at Zacatecas. We still know very little of the great wild sheep of California, or of the *berendos* of the same country, which, it would appear, resemble antelopes.^a The *jaguar*, and the *couguar*, which, in the New World, represent the tiger and lion of the old continent, are met with in all the kingdom of Guatimala, and in the lower and hot part of Mexico, properly so called; but they have been little observed by scientific naturalists. Hernandez says, that the *miztli* resembles the lion without a mane, but that it is of greater size.^b The Mexican bear is the same as that of Louisiana and Canada.^c

^a A. de Humboldt, t. II. p. 423.

^b Hernandez, Hist. Quadrup. c. II.

^c Mr. Bullock has added thirty-one species to this list, of which fifteen

The domestic animals of Europe conveyed to Mexico, have prospered there, and multiplied in a remarkable degree. The wild horses, which gallop in immense herds over the plains of New Mexico, are descended from those brought thither by the Spaniards. The breed is equally beautiful and vigorous. That of the mule is not less so. The transportation of goods between Mexico and Vera Cruz occupies 70,000 mules. The sheep are a coarse and neglected breed. The feeding of cattle is of great importance on the eastern coast, and in the intendency of Durango. Families are sometimes met with who possess herds of 40 or 50,000 head of cattle and horses. Former accounts speak of herds two or three times more numerous.^d

are *entirely new*. Vide his Six Months in Mexico, London, 1824, p. 186.

^d Valdecebro, Gobierno de Animales, *passim*.

BOOK LXXXIV.

THE DESCRIPTION OF AMERICA CONTINUED.

Mexico, including New Mexico, and the Captain-Generalship of Guatemala. Account of the inhabitants.

IT now remains for us to consider the human species. The first official census, made in 1793, gave, as an approximating result, 4,483,500 inhabitants, as the minimum. Those who examined the lists in detail, reasonably concluded that the great number of inhabitants who had evaded the general census, could not possibly be compensated for by those who, wandering without fixed habitation, had been counted several times. It was supposed that, at least, a sixth or a seventh ought to be added to the sum total, thus estimating the population of the whole of New Spain at 5,200,000 souls.

Since that period, the augmentation in the produce of tithes, and of the Indian capitation tax, that of all the duties on articles of consumption, the progress of agriculture and of civilization, the appearance of the country covered with houses recently built, all combine to indicate a rapid increase of population in almost every part of the kingdom. The census has not, however, been renewed. Humboldt has shown that the proportion of births to deaths, deduced from a comparison of fifty years, is, at an average, nearly as 170 to 100. The proportion of births to the population appears to him to be as one to seventeen, and that of deaths as one to thirty. He estimates the number of births at nearly 350,000, and that of deaths, at 200,000; so that, under favourable circumstances, the excess of births ought to be 150,000; and if nothing ever deranged or disturbed the order of nature, the population ought to be doubled every nineteen years.^a Confining himself to the addition of only one tenth for those who are omitted in the census, and of two tenths for the increase of population in ten years, Humboldt concluded that, at the close of the year 1803, the kingdom of Mexico contained 5,800,000 inhabitants.^b According to the same progressive augmentation, Mexico ought to have contained, in 1813, a population of seven millions of inhabitants; but already, in 1810, civil disturbances had begun to overturn the kingdom. On the same principle, Mexico must have supported, in 1823, a population of 8,392,044; being about 60,000 more than 8,331,434, the population of England, exclusive of Wales and the public service, &c. in the census of 1811. Allowing half a million for wars, and the privations and diseases naturally incident to wars, eight millions still remain as a moderate estimate of the present population of this fine country.

To Guatemala only a million of inhabitants are assigned, not including the Mosquito Indians, who are independent of Spain, and are allies of England.

The physical causes that almost periodically check the increase of the Mexican population, are the small-pox, the *matlazahuatl*, a kind of plague, and especially poverty and famine.

The small-pox was introduced in 1520, when, according to the testimony of the Franciscan father Torribio, it carried off one half of the inhabitants of Mexico. Returning like the black vomit, and many other diseases, at pretty regular periods, it committed dreadful ravages in 1763, and especially in 1779, when, in the capital of Mexico alone, more than 9000 persons fell a sacrifice to the disease, and it cut off a great part of the Mexican youth. The epidemic of 1797 was less destructive, chiefly in consequence of the zeal with which inoculation was performed. But in the month of January, 1804, vaccination was introduced into Mexico; and, thanks to the activity of Don Thomas Murphy, who has repeatedly obtained the virus from North America, this cause of the depopulation of Mexico will cease to exist for the future.

The *matlazahuatl* is said to be a disease peculiar to the Indian race; and granting this to be the case, it shows itself only at very long intervals. It was particularly destructive in 1545, 1576, 1736, 1737, 1761, and 1762. Torquemada assures us, that in the first epidemic, 800,000 Indians died, and not less than two millions in the second. According to common opinion, this disease is identical with the yellow fever, or black vomit; but, according to others, it ought to be looked upon as a genuine plague. The *matlazahuatl*, it is said, never attacks white persons, whether Europeans or descendants of Creoles; while, on the contrary, the yellow fever very rarely attacks the Mexican Indians. The neighbourhood of the sea is the situation which is chiefly liable to the black vomit; the *matlazahuatl*, on the contrary, carries dismay and death to the farthest interior of the country on the central plateau. These distinctions, however, appear to us to be delusive, or, at all events, but imperfectly ascertained. In the hot and humid valleys of the interior, the *matlazahuatl* finds as favourable a focus for the development of its miasmata as on the sea coast. In the ravages which it commits in the interior, this plague appears more especially to attack the Indians, because, constituting the principal part of the population, their wretchedness more completely exposes them to the effects of an epidemic. When desolating the sea coasts, it appears to select its first and most numerous victims from among the European sailors and workmen, who compose the great mass of the people. The symptoms of the two diseases, as far as we are acquainted with them, bear a striking resemblance to each other.

^a A. de Humboldt, t. I. p. 324—341.

^b He estimated the population in 1808 at more than 6,500,000.—P.

A third circumstance which proves exceedingly destructive to population, and perhaps becomes the most fatal of all, is famine. Indolent by character, situated under a beautiful climate, and accustomed to content themselves with little, the Indians cultivate only as much maize, potatoes, and wheat, as seem barely necessary for their own subsistence, or, at the very most, as may be required for the consumption of the towns and mines in their immediate neighbourhood. Independently of this fact, agriculture is deprived of thousands of hands, in consequence of the necessity of transporting on the backs of mules their merchandise, provisions, iron, gunpowder, and mercury, from the coast to the capital, and thence to the mines and smelting houses, often established in arid and uncultivated regions. The disproportion between the natural progress of population, and the increase of the quantity of aliments produced by cultivation, renews therefore the afflicting spectacle of famine every time that an excessively dry season, or some other accidental cause, has ruined the harvest of maize. A want of provisions is almost always accompanied by epidemic diseases. In 1804 alone, the maize having been destroyed by frost towards the end of August, it was estimated that more than 300,000 inhabitants were swept away in the kingdom, in consequence of the want of nourishment and asthenic diseases. The civil war which has recently spread desolation over its surface, must have greatly increased the mortality annually arising from this circumstance. The 46,000 lives which a late official paper states to have been sacrificed in this war of liberty, only comprehends those who died in battle. The number of slain at all times, constitutes merely a small portion of the loss which the population of the country sustains by civil war.^a

For a long time the labour of the mines was looked upon as one of the principal causes of the depopulation of America. It would, no doubt, be very difficult to deny that, at the period of its original conquest, and even long afterwards, a great number of Indians perished from excessive fatigue, want of nourishment and sleep, and especially from the sudden change of climate and temperature in passing from the summit of the Cordillera deep into the bowels of the earth,^b a change which renders the working of the mines so destructive to a race of men who are not endowed with that flexibility of organization which distinguishes the European. In the present day, however, the labour of the mines in New Spain is a voluntary occupation; no law forcing the Indian to engage in it, or to prefer the working of one mine to that of another. In general, the number of persons employed in these subterraneous works, and divided into several classes, does not exceed 28 or 30,000; and the mortality among the miners is not much greater than what is observed among the other classes of the people.^c

In Mexico, the human species presents four great divisions, which comprehend eight *casts*, namely,

- I. ABORIGINAL INDIANS.
- II. SPANIARDS, (a) born in Europe;
(b) Creoles born in America.
- III. NEGROES, (a) Africans, slaves.
(b) descendants of negroes.

- IV. MIXED CASTS, (a) Mestizos, the offspring of whites and Indians;
- (b) Mulattoes, the offspring of whites and negroes;
- (c) Zambos, arising from a mixture of Indians and negroes.

Some Malays and Chinese, who have come from the Philippine Islands to establish themselves in Mexico, cannot be included in this enumeration. The number of copper-coloured Indians of pure race, principally concentrated in the southern part of the table land of Anahuac, exceeds two millions and a half; thus forming about two fifths of the entire population. They are infinitely more rare, however, in the north of New Spain, and the provinces denominated *provincias internas*.

Far from becoming extinct, the indigenous population has continued to increase, especially during the last hundred years; and accordingly it would appear that, in total amount, these countries are more populous at present than they were previously to the arrival of the Europeans. The kingdom of Montezuma did not equal in extent the eighth part of New Spain, as it now exists. The great towns of the Aztecs, and their most cultivated lands, were met with in the environs of the capital of Mexico, and particularly in the beautiful valley of Tenochtitlan. The kings of Alcolhuacan, of Tlacopan, and of Mechoacan, were independent princes. Beyond the parallel of 20° were the Chichimecks and Otomites, two wandering and barbarous nations, whose hordes, though far from numerous, pushed their incursions as far as Tula, a town situated near the northern border of the valley of Tenochtitlan. It would be just as difficult, however, to estimate, with any degree of accuracy, the number of Montezuma's subjects, as it would be to decide respecting the ancient population of Egypt, Persia, Carthage, or Greece, or even respecting that of many modern states. History presents us, on the one hand, with a train of conquerors ambitious to throw additional lustre on their own exploits; on the other, certain religious and benevolent men, directing, with noble ardour, the arms of eloquence against the cruelty of the first colonists.^d Both parties are equally interested in exaggerating the flourishing condition of the newly discovered countries. At all events, the extensive ruins of towns and villages that are met with under the 18th and 20th degrees of latitude in the interior of Mexico, seem to prove that the population of this single part of the kingdom was once far superior to what it is now. Yet it must be remarked, that these ruins are dispersed over a space that, relatively speaking, is but very limited.

To a great degree of muscular strength, the copper-coloured natives add the advantage of being seldom or never subject to any deformity. Humboldt assures us that he never saw a hunch-back Indian, and that they very seldom squint, or are met with crippled in any of their limbs. In those districts where the inhabitants suffer from the goitre, this affection of the thyroid gland is never observed among the Indians, and rarely among the Mestizos. The Indians of New Spain, and especially the women, generally live to an advanced age. Their hair, it is said, never turns gray, and they preserve all their strength till the pe-

^a See p. 258.

^b Humboldt's Political Essay, book II. chap. v.

^c A. de Humboldt, t. I. p. 361.

^d Clavigero, Storia Antica di Messico, t. I. p. 36; t. IV. p. 231.

riod of their death. In respect of the moral faculties of the indigenous Mexicans, it is difficult to form a just estimate of them, if we consider this unhappy nation almost in the only light in which there has been an opportunity of viewing it by intelligent travellers, as sinking under long oppression, and depressed almost to the lowest point of degradation. At the commencement of the conquest, the wealthiest Indians, those, in short, among whom a certain degree of intellectual cultivation may be supposed to have existed, almost entirely perished, the victims of European ferocity. Christian fanaticism raged especially against the Aztec priests. The ministers of religion were exterminated; all those, in fact, who inhabited the *houses of God*, and who might be considered as depositories of the historical, mythological, and even astronomical knowledge of the country; for it was the priests who observed the meridian shade on the dials, and regulated the intercalations. The Spanish monks burned the hieroglyphical paintings, by which knowledge of every kind had been transmitted from generation to generation.^a Deprived of these means of instruction, the people sunk back into a degree of ignorance which became the more profound, because the missionaries, little versed in the Mexican languages, substituted few new ideas in place of the ancient ones that had thus been lost. The Indian women who still preserved some fortune, preferred an alliance with their conquerors to sharing the general contempt which was entertained for their nation. Of the natives, therefore, only the most indigent class remained, the poor husbandmen, the artisans, among whom were to be reckoned a great number of weavers, the porters, who, from a want of the larger quadrupeds, were made use of as beasts of burthen, and above all, that refuse of the people, the crowd of mendicants, who proving at the same time the imperfection of social institutions, and the yoke of feudalism, already, even in the time of Cortez, filled the streets of all the great towns of the Mexican empire. How, therefore, from such miserable remains of a once powerful people, can we possibly judge either of the degree of cultivation to which they had been raised, from the twelfth to the sixteenth century, or of the intellectual development of which they are susceptible? Still, however, we cannot doubt that a part of the Mexican nation had attained a certain degree of improvement, when we reflect on the care with which the hieroglyphical books were composed, and call to mind that a citizen of Tlascalala, surrounded by the perils and din of war, profited by the facility which our Roman Alphabet afforded him, to write in his native language five large volumes upon the history of a country, of which he deplored the subjugation. The Mexicans possessed an almost exact knowledge of the true length of the year, which they intercalated at the end of their great cycle of a hundred and four years,^b with more exactness than the Greeks, the Romans, or the Egyptians. The Toltecs appeared in New Spain in the seventh century, and the Aztecs in the twelfth. Even at this period they drew out a geographical map of the country which they had traversed; they built towns, and formed roads, dikes, canals, and immense pyramids, the faces of which

were accurately directed to the four cardinal points, and the base extended the length of 474 yards.^c Their feudal system, and their civil and military hierarchy, were even then of so complicated a nature, that we must naturally suppose the previous existence of a long series of political events, in order that their singular concatenation of public authorities, of nobility and clergy, could have been established, and that a small portion of the people, slaves themselves of the Mexican Sultan, could have subjugated the great mass of the nation. Small tribes, weary of tyranny, had given themselves republican constitutions, which can never be formed, except in consequence of long continued popular tumults, and the very establishment of which indicates no recent civilization. But from whence did this come, or where did it take its rise? Accustomed servilely to admit exclusive systems, and knowing only how to learn without meditating, we forget that civilization is nothing but the employment and development of our moral and intellectual faculties. The inimitable Greeks attributed their superior civilization to Minerva; in other words, to their own proper genius; yet we obstinately persist in giving them the Egyptians as masters. These, on the other hand, revered Osiris as their first great teacher; while we affect to look for the source of their civilization in India. But, in that case, who instructed the Indians? Was it Brama, Confucius, Zoroaster, Manco-Capac, Idacanzas, or Bochica? Every thing must have a beginning; and if civilization could rise into existence in the Old Continent, why might it not also have done the same in the New? The total want of wheat, oats, barley, and rye, of those nourishing grasses which are designated by the general name of *cerealia*, or corn, appears to prove that, if any Asiatic tribes really have passed into America, they must be descended from some wandering or pastoral people. In the old continent we find the cultivation of the *cerealia*, and the use of milk, already introduced at the most remote period of which history preserves any record. The inhabitants of the New Continent cultivated no other grain than maize (*zea*;) they consumed no preparation of milk, although two species of the ox, natives of the north, might have afforded them milk in abundance. These are striking contrasts, and taken in conjunction with the results of a comparison of languages, they prove that the Mongol race could never have contributed any thing but wandering tribes to the original population of America.

In his present condition, the Mexican Indian is grave, melancholy, and taciturn, as long as he is not under the influence of intoxicating liquors. This gravity is particularly remarkable in the children of Indians, who, at the early age of four or five years, display much greater intelligence and development of mind than the children of whites. He delights in throwing an air of mystery over his most trifling remarks. Not a passion manifests itself in his features. At all times gloomy, there is something terrific in the change, when he passes all at once from a state of absolute repose to violent and ungovernable agitation. The energy of his character, to which every shade of softness is unknown, habitually degenerates into fero-

^a See Humboldt's *Researches on the Institutions and Monuments of Ancient America*, Pref. p. 3.

^b *Ibid.* I. 287. The Mexicans intercalated 13 days every 52 years. The cycle of 104 years was simply religious.—Tr. The Mexican civil year was a solar year of 365 days, divided into 18 months, of 20 days each, to which were added 5 intercalary days. Each month was divided into 4 weeks of 5

days each. Thirteen years formed a cycle, 4 of which constituted a period of 52 years, at the end of which 13 days were intercalated, which made their year agree with the Julian period of 365 days 6 hours. Two of these periods of 52 years formed a period of 104 years, called an old age.—P.

^c "438 metres."

city. This is especially the case with the inhabitants of Tlascalala. In the midst of their degradation, the descendants of these republicans are still distinguished by a certain haughtiness with which they are inspired by the remembrance of their former greatness. The indigenous natives of Mexico, like all other nations who have long groaned under civil and religious despotism, are attached, with an extreme degree of obstinacy, to their habits, their manners, and their opinions. The introduction of Christianity among them has scarcely produced any other effect than merely substituting new ceremonies, the symbols of a mild and humane religion, for the ceremonies of a sanguinary worship. From the earliest periods, semibarbarous nations have received new laws and new divinities from the hands of their conquerors. The indigenous and vanquished gods give place to foreign deities. Besides, in a mythology as complicated as that of the Mexicans, it was easy to discover an affinity between the divinities of Atzlan and those of the east. The Holy Spirit, for instance, was identified with the sacred eagle of the Aztecs. The missionaries not only tolerated, they even favoured this mixture of ideas, by which the Christian worship became more speedily established.^a The English collector, Mr. Bullock, readily obtained leave from the clergy and authorities, in 1823, to disinter and take casts from the image of the sanguinary goddess *Teoyamiqui*. During the time it was exposed, he adds, "the court of the University was crowded with people, most of whom expressed the most decided anger and contempt. Not so, however, all the Indians. I attentively marked their countenances; not a smile escaped them, or even a word—all was silence and attention. In reply to a joke of one of the students, an old Indian remarked, 'It is true we have three very good Spanish gods, but we might still have been allowed to keep a few of those of our ancestors.' I was informed that chaplets of flowers had been placed on the figure by natives, who had stolen thither unseen, in the evening, for that purpose: a proof that notwithstanding the extreme diligence of the Spanish clergy for 300 years, there still remains some taint of heathen superstition among the descendants of the original inhabitants."^b Yet it was probably a nobler impulse than superstition that wove the chaplet for the statue of *Teoyamiqui*; rather that mystery of nature, by which she links the present to the past with veneration, and to the future with anxiety,—that awful reverence with which the rudest nations look back to their origin and ancestors, and which even now, amongst the most enlightened, still consecrates the relics of Montmorillon and Stonehenge.

The Mexicans have preserved a particular taste for painting, and for the art of carving in stone and wood. It is truly astonishing to see what they are capable of executing, with a bad knife, upon the hardest wood. They are particularly employed in painting the images and carving the statues of saints; but from a religious principle, they have continued servilely to imitate, for 300 years, the models which the Europeans brought with them at the period of the original conquest. In Mexico, as well as Hindostan, the faithful were not allowed to make the smallest change in their idols: Every thing connected with the rites of the

Aztecs was subjected to immutable laws. It is on this very account that the Christian images have preserved, in some degree, that stiffness and hardness of feature which characterized the hieroglyphical pictures of the age of Montezuma. They display a great deal of aptitude for the exercise of the arts of imitation, and still greater for those of a purely mechanical nature.

When an Indian has attained a certain degree of cultivation, he shows great facility in acquiring information, a precise and logical understanding, and a particular tendency to subtilize, or to seize on the minutest differences in objects that are to be compared with each other. He reasons coldly and with method; but he does not evince that activity of imagination, that lively freshness of sentiment, that art of creating and of producing which characterizes the people of Europe and many tribes of African negroes. The music and dancing of the indigenous natives partake of that want of cheerfulness which is so peculiar to them. Their singing is of a melancholy description. More vivacity, however, is observed in their women than in their men; but they share the evils of that state of subjection to which the sex is condemned among most of those nations where civilization is still imperfect. In the dance women take no part; they are merely present for the sake of offering to the dancers the fermented drinks which they themselves have prepared.^c

The Mexican Indians have likewise preserved the same taste for flowers that Cortez noticed in his time. We are astonished to discover this taste, which doubtless indicates a taste for the beautiful, among a people in whom a sanguinary worship, and the frequency of human sacrifices, appeared to have extinguished every feeling connected with sensibility of mind and the softer affections. In the great market of Mexico, the native does not sell even fish, or pine-apples, or vegetables, or fermented liquor, without his shop being decked out with flowers, which are renewed every succeeding day. The Indian shop-keeper appears seated behind a perfect entrenchment of verdure, and every thing around him wears an air of the most refined elegance.

The Indian hunters,^d such as the *Mecos*, the *Apaches*, and the *Lipans*, whom the Spaniards comprehend under the denomination of *Indios bravos*, and whose hordes, in their incursions, which are often made during the night, infest the frontiers of New Biscay, Sonora, and New Mexico, evince more activity of mind, and more strength of character, than the agricultural Indians. Some tribes have even languages, the mechanism of which appears to prove the existence of ancient civilization. They have great difficulty in learning our European idioms, while, at the same time, they express themselves in their own with an extreme degree of facility. Those same Indian chiefs, whose gloomy taciturnity astonishes the observer, will hold a discourse of several hours whenever any strong interest rouses them to break their habitual silence. We shall afterwards enter into some further details with regard to these tribes.

The indigenous natives are either descendants of ancient plebeians, or the remains of some great family, who, disdaining to ally themselves with their conquerors, the

^a Vide Humboldt's Researches, (English edition) vol. II. p. 176. Essai Politique, I. p. 95.

^b Bullock's Six Months in Mexico, p. 341. Humboldt, Ess. Pol. II. 61.—English.

^c A. de Humboldt, t. I. p. 413.

^d "Indiens chasseurs,"—the Indians who live by hunting; the wild Indians, or hunting tribes.

Spaniards, have preferred cultivating, with their own hands, those very fields, which were formerly cultivated by their vassals. They are divided accordingly into tributary Indians and Indian Caciques, who agreeably with the Spanish laws, ought to participate in the privileges of the nobility of Castile. But it is difficult to distinguish by their exterior, their dress, or their manners, the nobleman from the plebeian. They generally go barefooted, and are dressed in the Mexican tunic, which is of a coarse quality, and of a blackish brown colour. In short, there is no difference between their dress, and that of the common people, who, notwithstanding, show them a great deal of respect. Nevertheless, far from protecting their countrymen, those individuals who enjoy the hereditary privileges of the *Caciquate* are very oppressive to such as are tributary. Exercising the magistracy in the Indian villages, it is they who levy the capitation tax. Not only do they delight in becoming the instruments of the oppressions of the whites, but they also make use of their power and authority for the purpose of extorting petty sums for their own profit. Independently of this, indeed, the Aztec nobility are remarkable for the same grossness of manners, the same want of civilization, and the same ignorance, as the lower classes of Indians. Isolated, and living in a state of degradation, it has rarely happened that any of its members have followed the profession of the robe or the sword. A greater number of Indians have embraced the ecclesiastical condition, especially that of curate. The solitude of the convent appears to have attractions for none but young Indian girls.

Considered in a general point of view, the Mexican Indians present a picture of extreme wretchedness. Indolent from disposition, and still more so from the effects of their political situation, they live only from day to day. In place of general ease of circumstances, families are met with whose fortune appears so much the more extensive as it is the less expected. Nevertheless, the existing laws, in general mild and humane, secure to them the fruit of their exertions, and full liberty for the sale of their productions. They are exempt from all indirect imposts, and are merely subject to a capitation tax, which is paid by the male Indians from ten to fifty years old, and the burthen of which has been latterly much alleviated. In 1601, the Indian paid annually 32 reals of tribute, and four of royal service; making a total of nineteen shillings and twopence sterling.^a Little by little, it has been reduced, in some of the intendancies, to twelve shillings and sixpence, and even to four shillings and twopence.^b In the bishopric of Mechoacan, and in the greater part of Mexico, the capitation tax amounts at present to nine shillings and twopence.^c But if legislation appears to favour the natives with regard to taxes, it has, on the other hand, deprived them of the most important rights which the other citizens enjoy. In an age, when it was formally debated whether the Indians were actually reasonable beings, it was considered as granting them a singular favour to treat them as minors, by placing them under the perpetual tutelage of the whites, and by declaring null every act signed by a native of the copper-coloured race, and every obligation which he contracted of above the value of twelve shillings and sixpence.^d

These laws, maintained in their full vigour, raise insurmountable barriers between the Indians and the other castes, with whom intermarriage is likewise prohibited, while their disunion, as well as that of their families and constituted authorities, has always been considered by Spanish policy as the surest means of preserving the colonies in a state of dependence on the mother country. The law not only interdicts the mixture of the castes, but prevents the whites from living in the Indian villages, and prohibits the natives from establishing themselves among the Spaniards. The Indians govern themselves; but their magistrates, generally the only individuals in the village who speak Spanish, have an interest in keeping their fellow citizens in a state of the profoundest ignorance. Restricted to a narrow space, the radius of which is only 542 yards,^e the boundary assigned by an ancient law to the Indian villages, the natives are, in some measure, destitute of individual property; they are bound to cultivate the common property, without the hope of ever reaping the fruit of their labours. The new regulation of the intendancies directs that the natives are no longer to receive assistance from the common funds without special permission from the college of finances of Mexico. The common property has been farmed out by the intendants, and the produce is paid into the royal treasury, where the government clerks keep, under particular heads, an account of what they call the property of each village. But it has become so tedious and so difficult to obtain for the natives any assistance from these funds, that they have ceased applying for it. Either by a singular fatality, or from a fault inherent in all social organization, the privileges accorded to the Indians, far from being the means of obtaining them any advantage, have, in reality produced effects constantly unfavourable to this caste, and have actually furnished the means of oppressing them.

The Spaniards occupy the first rank in the population of New Spain. It is in their hands that almost all the property and riches of the kingdom are retained. Yet they would occupy only the second place among the inhabitants of pure race, if they were considered according to their numbers, which, in New Spain, may amount to 1,200,000, of which one quarter inhabit the internal provinces.^f They are divided into the whites born in Europe, and the descendants of Europeans, born in the Spanish colonies of America, and the Asiatic Islands. The former have received the appellation of *Chapetons*, or *Gachupinos*; the second that of *Criollos*.^g The natives of the Canary Islands, who are generally designated by the denomination of *Islenos*, and who, for the most part, are overseers and agents of plantations, are considered as Europeans. The *Chapetons* are estimated as one to fourteen. To all of them the laws grant the same rights; but those who are nominated to assist in their execution, exert themselves to destroy that equality which wounds European pride so deeply. The government bestows the higher offices exclusively on natives of old Spain; and for some years back, has disposed, even at Madrid, of the most trifling situations in the management of the customs, or in the collection of the taxes. The most miserable European, without education, without intellectual cultivation, thinks

^a "23 francs."

^b "15 and 5 francs."

^c "11 francs."

^d "15 francs."

^e "500 metres:"

^f *Provincias internas*.

^g Creoles.

himself superior to the whites who are born in the New Continent. He knows that, protected by his countrymen, and favoured by those chances which are common in a country where fortunes are acquired as rapidly as they are destroyed, he may, one day or other, attain those offices, the access to which is almost interdicted to the natives, even to those who are distinguished by their talents, their knowledge, and their moral qualities. A system of venality, in particular, has made frightful progress amongst them. From this have arisen motives of jealousy and perpetual hatred between the Chapetons and the Creoles. Consequently, since the emancipation of the English colonies, and particularly since 1789, the latter have been often heard to exclaim, in a haughty manner, "I am not a Spaniard, I am an American!" expressions which betray the effects of long cherished resentment.

The castes of mixed blood, proceeding from an intermixture of the pure races, compose almost as considerable a portion of the people as the indigenous natives. We may estimate the total number of individuals of mixed blood at nearly 2,400,000 souls. By a refinement of vanity, the inhabitants of the colonies have enriched their language, by applying names to the most delicate shades of tint that arise from the degeneration of the primitive colour. The son of a white, either an European born, or a Creole, and of a native female of the copper-colour, is called *Mestizo*. His colour is almost a perfect white, and his skin has a peculiar transparency. The scanty beard, the small size of the hands and feet, and a certain obliquity of the eyes, oftener serve to proclaim a mixture of Indian blood, than the nature of the hair. If a female *Mestizo* marry a white, the second generation which results from this union scarcely differs in any respect from the European race. The *Mestizos* compose, in all probability, seven-eighths of the whole population of the castes. They are looked upon as possessing a milder character than the *Mulattoes*—the offspring of the whites and the negroes, who are conspicuous for the intensity of their colour, the violence of their passions, and their singular volubility of speech. The descendants of negroes and Indian women are known at Mexico, at Lima, and even at Havannah, by the absurd name of *Chino*, Chinese. On the coast of Caraccas, and even in New Spain itself, they are likewise called *Zambos*. At present, this latter term is principally confined to the descendants of a negro and a female *Mulatto*, or of a negro and a female *Chino*. These common *Zambos* are distinguished from the *Zambos Prietos*,^a who are born of a negro and a female *Zambo*. The castes of Indian and African blood preserve the odour which is peculiar to the cutaneous transpiration of these two primitive races. From the union of a white with a female *Mulatto*, proceeds the caste of the *Quarterons*. When a female *Quarteron* marries an European, or a Creole, her children are termed *Quinterons*. A fresh alliance with the white race so completely obliterates all remaining traces of colour, that the children of a white and a female *Quinteron*, are white also. Those mixtures by which the colour of the infant becomes darker than that of its mother, are called *Salta-atras*, or back-steps.^{b c}

The greater or less quantity of European blood, and the skin being more or less clear, are at once decisive of the consideration which a man enjoys in society, and of the

opinion which he entertains of himself. A white who rides barefooted, fancies that he belongs to the nobility of the country. Colour even establishes a certain equality between those who, as every where happens where civilization is either little advanced, or in a state of retrograde movement, take pleasure in refining on the prerogatives of race and origin. When an individual of the lower orders enters into a dispute with one of the titled lords of the country, it is no unusual thing to hear him exclaim to the nobleman, "Is it possible that you really thought yourself whiter than I am?" Among the *Mestizos* and *Mulattoes* there are many individuals who, by their colour, their physiognomy, and their intelligence, might be confounded with the Spaniards; but the laws keep them down in a state of degradation and contempt. Possessing an energetic and ardent character, these men of colour live in a state of constant irritation against the whites; and resentment too often hurries them into vengeance. It frequently occurs, too, that families who are suspected of being of mixed blood, claim, at the high court of justice, a declaration that they appertain to the whites. In this way, very dark coloured *Mulattoes* have had the address to get themselves *whitened*, according to the popular expression. When the judgment of the senses is too palpably in opposition to the solicitations of the applicant, he is forced to content himself with somewhat problematical terms; for, in that case, the sentence simply states, that "such and such individuals may consider themselves as white."

Of all the European colonies under the torrid zone, the kingdom of New Spain is the one in which there are the fewest negroes. One may walk through every part of the city of Mexico, without seeing one single black face. Slaves are never employed to perform the domestic services of any house there. According to the most authentic information, it would appear that in the whole of New Spain there are not 6000 negroes, and, at the very utmost 9000 or 10,000 slaves, the greater part of whom inhabit the ports of Acapulco and Vera Cruz, or the hot region in the vicinity of the coasts. These slaves are prisoners who have been taken in the petty warfare that is almost continual on the frontiers of the internal provinces. For the most part, they belong to the nation of the *Mecos*, or *Apaches*, a race of untractable and ferocious mountaineers, who most commonly sink speedily under the influence of despair, or of the change of climate. The increase of the colonial prosperity of Mexico is altogether independent, therefore, of the slave trade. It is only twenty years ago, 1817, that Mexican sugar was almost unknown in Europe; at present, however, Vera Cruz alone exports more than 120,000 quintals, and yet the number of slaves is not sensibly augmented by the progress which has been made in the cultivation of the sugar cane in New Spain, since the revolutionary changes in St. Domingo. Besides, in Mexico, as in all the Spanish possessions, the slaves are rather better protected by the laws than the negroes who inhabit the colonies of the other European nations. The law is always interpreted in favour of liberty. The government is desirous of seeing the number of enfranchised slaves increase. A slave who, by his own industry, has become possessed of some money, may force his master to enfranchise him, on paying him the sum of from 62*l.* to 83*l.* 6*s.* sterling,^d even where he has

^a Black-Samboes.

^b Properly, leaps backward.

^c Memoir of the Bishop of Mechoacan, quoted by Humboldt.

^d "1500 to 2000 francs."

originally cost the proprietor twice that amount, or is gifted with some particular talent for exercising a lucrative business. A slave, who has been cruelly ill-treated, obtains, according to law, a right to his freedom from that very circumstance. Humboldt himself saw an instance of this.

The languages spoken throughout the vast extent of Mexico, are more than twenty in number, and are part of them, however, known only by name. The Creoles, and the greater part of the mixed races, have not adopted here, as they have in Peru, an indigenous dialect, but make use of the Spanish language, both in conversation and in writing. Among the native dialects, the Aztec or Mexican tongue is the most widely diffused; it extends at present from the parallel of 37° to the vicinity of lake Nicaragua, but the peculiar regions of several other languages appear to be inclosed, as it were, within that of the Mexican. The historian Clavigero has proved that the Toltecs, the Chichimecks, (from whom the inhabitants of Tlascalala are descended,) the Acolhuacs, and the Nahuatlacs, all spoke the same language as the Aztecs.^a The repetition of the syllables *lli, lla, ill, atl*, joined to the length of the words, which sometimes consist of eleven syllables, must render this language far from being agreeable to the ear. But, at the same time, the complication and richness of its grammatical forms, seem to prove the high intelligence of those who invented or methodised it. An extremely limited number of analogies between their words, appears to give it an affinity to the Chinese and the Japanese; but its general character weakens the resemblance. The Otomite language, spoken in the ancient kingdom of Mechoacan, or in New Galicia, is an original language composed of monosyllables like the Chinese, and therefore entirely different from the Mexican, and appears to have been very extensively diffused.^b It is impossible to say whether the *Tarasc*, *Matlazing*, and *Cora* idioms, likewise spoken in New Galicia, are branches of the same trunk, or original languages independent of each other: one thing is certain that those words of the *Tarasc* and *Cora* languages with which we are acquainted, present very little affinity with the other languages of America. The *Tarahumara* and *Tepehuan* languages, spoken in New Biscay; the idiom of *Pimas*, used in Pimeria, a district of Sonora; that of the *Apaches*, the *Keras*, the *Piras*, the *Tiguas*, and other tribes of New Mexico; the *Guaicura* language spoken in California by the *Moquis*; that of the *Cochimis*, and of the *Pericues*, in the same peninsula; that of the *Eslenes*, and

Rumsens,^c in New California, still present a chaos of doubt and obscurity. In the *Tarahumara*, the names of the numbers are Mexican. It is remarkable that a dialect of the *Guaicura* is termed *Cora*, and that the name of the *Moquis* of California is again met with in New Mexico.^d More accurate knowledge will doubtless reduce this crowd of tribes to a small number of distinct races.^e

The *Huastec* language, which has been preserved in the district of Huasteca, in the intendency of Mexico, appears to differ entirely from the Mexican, both with regard to words and grammar.^f It exhibits some *Finnish* and *Ostiak* words; might it not, therefore, be traced to the first invasion of the tribes of Northern Asia; an invasion anterior to that in which the ancestors of the Aztecs, the Toltecs, and the Chichimecks, must have borne a part?

It appears that, in advancing to the south of Mexico, the indigenous languages, independent of that of the Aztecs, become extremely numerous. The intendancies of Puebla and Oaxaca, contain the *Zapoteca*, *Totonaca*, *Mixteca*, *Popolonga*, *Chinanteca*, and *Mixe* languages, and many others less known.^g The *Maya* tongue, which is in general use in Yucatan, appears to us to contain *Finnish* and *Algonquin* words. The learned Hervas has observed in it a certain number of Tonquinese words,^h amongst which there are some that are common to different idioms of Siberia and to the Finnish.ⁱ This language is composed of monosyllables, like the most ancient ones of eastern Asia; but it is superior to them by its grammatical combinations. It appears to be derived from the same general root as the Otomite, of which we have already spoken. In the kingdom of Guatemala, the *Chiapanese* language, the *Caqui-quel*, the *Uilateca*, the *Lakandone*, and others, still remain to be the objects of farther research. The principal of those that are spoken in this kingdom is called the *Poconchi* or *Pocomane*, which bears manifest affinity with the *Maya* language, and therefore ought to differ radically from the Mexican, which, however, was very much spoken in that country before the invasion of the Spaniards, and at present is the prevailing language. The *Guaymi* tongue, in the province of Veragua, is conceived to have some analogy with the Caribbean, and would thus prove an invasion of some tribes from South America; this circumstance, however, is mentioned with hesitation. The idiom of the *Mosquito Indians* on the coast of Honduras has not been studied.

We shall now proceed to the topographical description.

^a Clavigero, Storia di Messico, t. I. p. 153.

^b Hervas, Catalogo delle Lingue, p. 80. 258.

^c The Escelen and Rumsen.

^d Hervas, Catalogo, p. 76 and 80.

^e See Literary Transactions of American Philosophical Society. Philad. 1819.

^f Vater, in the Ethnographic Archives, v. I.

^g A. de Humboldt, t. I. p. 378. Hervas, Catalogo, p. 75.

^h Hervas, p. 257.

ⁱ See the comparative table of words after the introduction to America, p. 227. and the supplement to this table, at the end of the volume.

BOOK LXXXV.

THE DESCRIPTION OF AMERICA CONTINUED.

*Continuation and conclusion of the description of Mexico.—
Topography of the Provinces and Towns.*

THE Spaniards have given the name of *New California* to all the western coasts, situated between the port of *San Diego*,^a and the northern, but hitherto undefined boundary of their possessions.^b The celebrated English navigator, Sir Francis Drake, designated a part of these coasts by the name of *New Albion*; but, in our *History of Geography*, we shall see that the claim of priority of discovery belongs to the Spaniards. Nevertheless, the English name has remained on the maps, attached to that portion of the territory in which the Spaniards have formed no establishment, from the 38th to the 44th parallel, or even beyond it. In the neighbourhood of *Cape Mendocino*, the interior of *New Albion* presents the distant prospect of several peaks of mountains, covered with snow even in summer; but when Sir Francis Drake thought that he even discerned snow upon the lower mountains, in the environs of the harbour which bears his name, in latitude 38° 10', he was probably deceived by the appearance of sand or very white rocks.^c The natives in the vicinity of *Cape Oxford*, exhibit some European features. Their complexion is a clear olive; their stature is above the middle size; and they have a mild and honest disposition. They tattoo their skin, and speak a language different from that of *Nootka*. The inhabitants of *Trinidad Bay* have the custom of filing all their teeth, horizontally, down to the very gums.^d

New California, considered as a Spanish province, is a narrow stripe, which borders the coasts of the Pacific Ocean, from port *San Francisco* to the settlement of *San Diego*. Under a sky which is often foggy and humid, but extremely mild, this picturesque country on every side displays to the view magnificent forests and verdant savannas, where numerous herds of deer, or elks of a gigantic size, graze undisturbed. The soil has easily admitted of different kinds of European cultivation. The vine, the olive, and wheat, prosper there. In 1802, there were eighteen missions, and the population of permanent cultivators amounted to 15,560 individuals.^e

San Francisco, the most northern military post or *presidio*, is situated upon an extensive bay of the same name, into which a large river empties itself; probably the *Rio San Felipe*, issuing from the lake *Timpanogos*.^f Near the mission of *Santa Clara*, wheat produces from twenty-five to thirty for one, and requires very little care. The har-

vest is reaped in July. Beautiful forests of oak, intermingled with high and low *prairies*, give the country all the appearance of a natural park.^g *San Carlos de Monterey* is the seat of the governor of the two Californias. The port of *Monterey* is very far from meriting the celebrity which it has received from the Spanish navigators; it is a bay, with an indifferent anchorage. The aspect of the country is charming, and the inhabitants enjoy a perpetual spring.^h The soil becomes richer the farther you penetrate into the interior. *Santa Barbara*, the principal town of a jurisdiction, is situated on a canal of the same name, formed by the continent and some islands, of which *Santa Cruz* and *Santa Catalina* are the most considerable. The mission of *San Buenaventura*, to the east of this *presidio*, occupies a fertile country, but is exposed to great droughts, which is generally the case with all this coast. Vancouver saw abundance of fruit of excellent quality growing in the garden of the missionaries, such as apples, pears, figs, oranges, grapes, pomegranates, two species of banana, cocoa-nuts, sugar canes, indigo plants, and several kinds of garden vegetables. The environs of *San Diego* are gloomy and barren. The territory of the mission of *San Juan de Campistrano* supports excellent cattle.

The indigenous natives are divided into a great number of tribes, speaking entirely different languages. The *Matalans*, the *Salsen*, and the *Quirotes*, near the bay of *San Francisco*, and the *Rumsen*, and *Escelen*, near *Monterey*, are the best known of these Indians. The name of *Quirote* recalls that of the kingdom of *Quivira*, placed in the same spot, on a large river, by the early Spanish geographers, who related the discoveries of *Cabrillo* and *Vizcaino*.

Old California, or the peninsula of California, properly so called, is bounded by the ocean on the south and west, and by the Gulf of California, likewise called the *Vermilion Sea*, on the east. It crosses the tropic, and terminates in the torrid zone, in *Cape St. Lucas*. Its breadth varies from ten to forty leagues from the one sea to the other. Its climate in general is very hot, and very dry. The sky, which is of a deep blue colour, is scarcely ever obscured by clouds; and when any are seen floating in the horizon at sunset, they display brilliant tints of purple and emerald. But this beautiful sky stretches over an arid sandy country, where the cylindrical cactus,ⁱ rising from the clefts of the rocks, is almost the only vegetable production that relieves the absolute barrenness of the scene.^k

^a Lat. 33° 30'. Long. 117° 38'. La Perouse's Map. [Lat. 32° 42']

^b By the treaty with the United States, (1821,) the N. boundary was fixed at 42° N.

^c Vancouver's Voyage, v. I. p. 287. French translation.

^d Ibid. v. I. p. 288. v. III. p. 195. French trans.

^e A. de Humboldt, t. II. p. 440.

^f Humboldt, Map of New Spain. Doubtful.

^g Vancouver, t. II. p. 284; t. IV. p. 143.

^h Ibid. II. 305 and 309.

ⁱ Cactus cylindricus, Lam. Enc. I. p. 539. Pers. II. 22.

^k A. de Humboldt, t. II. p. 421. et seq.

In some rare spots, where there is water and vegetable mould, fruit and corn multiply in an astonishing manner, and the vines afford a generous wine, similar to that of the Canaries. A species of sheep,^a of a very large size, is also met with, which affords exceedingly delicate and excellent food, and its wool is easily spun. A considerable number of other wild quadrupeds, as well as a great variety of birds, are named. The pearls that are fished on the coast of California have a beautiful water, but are of an irregular figure. The gold mines which popular tradition has placed in this peninsula, consists in reality of merely a few scanty veins. At the distance of fourteen leagues from Loreto, two mines of silver have been discovered, which are considered as tolerably productive; but the want of wood and of mercury, renders it almost impossible to work them.^b In the interior of the country there are plains covered with a beautiful crystalline salt. Since the missions of old California have been on the decline, the population has been reduced to less than 9000 inhabitants, who are dispersed over an expanse of country equal in size to that of England. *Loreto*, the chief place of California, is a little town with a *presidio*, or military post. The inhabitants, Spaniards, Mestizos, and Indians, may perhaps amount to 1000 individuals, and it is the most populous place of all California.

Before the arrival of the missionaries, the indigenous natives of Old California lived in the lowest state of degradation. Like the lower animals, they would pass whole days lying stretched out upon their belly in the sand; and like beasts of prey, when pressed by hunger, they would fly to the chase merely to satisfy the wants of the moment. A sort of religious horror, nevertheless, made them believe in the existence of a great Being, whose power they dreaded. The *Pericues*, *Guaicurua*, and the *Laymones*, are the principal tribes.

The first missions of Old California were formed in 1698 by the Jesuits. Under the management of these Fathers, the savages had abandoned their wandering life. In the midst of arid rocks, of brush-wood and bramble, they had cultivated little spots of ground, had built houses, and erected chapels, when a despotic decree, as unjust as it was impolitic, came to banish from every part of Spanish America this useful and celebrated society. The governor, Don Portola, sent into California for the purpose of executing this decree, imagined that he was to find vast treasures, and to encounter 10,000 Indians armed with muskets, prepared to defend the Jesuits; far, however, from this being the case, he beheld only venerable priests, with silver-white hair, coming humbly forward to meet him. He shed generous tears for the fatal error of his king, and as far as lay in his power softened the execution of his orders. The Jesuits were accompanied to the place of their embarkation by the whole body of their parishioners, in the midst of sobs and exclamations of sorrow.^c The Franciscans immediately succeeded them in Old California, and in 1769 extended their pacific conquests over New California. Still later, the Dominicans obtained the government of the missions in the former of these provinces, but have either neglected them, or managed them unskillfully. The Franciscans, on the contrary, constitute the happiness of the Indians. Their simple dwellings have

a most picturesque appearance. There are many of them concealed in the interior of the country, far from the military posts. But their safety is insured by the universal respect and love with which they are treated.

Many French writers, and, among others, the Abbe Raynal, have spoken in pompous terms of what they term *The Empire of New Mexico*; and they boast of its extent and riches. Under this denomination they appear to comprehend all the countries between California and Louisiana. But the true signification of this term is confined to a narrow province, which, it is true, is 175 leagues in length, but not more than thirty or forty in breadth. This stripe of country, which borders the Rio del Norte, is thinly peopled; the towns of *Santa Fé* containing 4000 inhabitants, *Albuquerque*, 6000, and *Taos*, 9000, comprise almost one half of the population. The other half consists of poor herdsmen, whose scattered hamlets are frequently ravaged by the powerful tribes of Indians who surround or overrun the province. It is true, that the soil is amongst the finest and most fertile of Spanish America. Wheat, maize, and delicious fruits, especially grapes, grow there abundantly. The environs of *Passo del Norte*, produce the most generous wines. The mountains are covered with pines, maples, and oaks. Beasts of prey are met with in great numbers. There are also wild sheep, and particularly elks, or at least large deer, fully the size of a mule, with extremely long horns. According to the Dictionary of *Alcedo*, mines of tin have been discovered. There are several hot springs. Rivers, with a saline taste, indicate the existence of rich beds of rock salt. The chain of mountains that borders New Mexico, on the east, seems to be of a moderate degree of elevation. There is a pass through it, called *Puerto de Don Fernando*, by which the Paducas have penetrated into New Mexico. Beyond this chain extend immense prairies, on which buffaloes and wild horses pasture in innumerable herds. The Americans of the United States hunt these animals, and sometimes pursue them to the very gates of Santa Fé. The principal mountains follow the western bank of the Rio del Norte. Some peaks, or *cerros*, are there to be distinguished. Further to the north, in the country of *Nabaho*, the map of Don Alzate has traced mountains with flat summits, denominated in Spanish *mesas*, that is, *tables*.

The calcareous nature of the soil appears to be established by an event of a rather extraordinary nature in the annals of physical geography. In 1752, the inhabitants of *Passo del Norte* beheld the bed of the great river all at once become dry, along a tract of fifty leagues. The water of the river precipitated itself into a fissure recently formed, and only issued again from the earth near the presidio of *St. Eleazar*. The Rio del Norte disappeared in this manner for several weeks; but at length the water resumed its former course, because no doubt the fissure and the subterranean passages had been choaked up.^d

The Spanish inhabitants of New Mexico, as well as those of New Biscay, and of the greater part of the *Provincias Internas*, live in a state of perpetual war with the neighbouring Indians. These Spaniards never travel but on horseback, always armed and prepared for combat. They live in a colder climate than that of Mexico; the winter, which often covers their rivers with thick ice,

^a *Ovis montana*, Rocky Mountain sheep.

^b P. Jacques Baegert, Account of California, (in German, Munich, Manheim, 1773,) p. 200. Vancouver, t. IV. p. 155.

^c *Relatio Expuls. Soc. Jesu, scripta a P. Duerue*, in the *Journal Littéraire* de M. Murr, t. XII.

^d Manuscript Journey of the Bishop Tamaron, consulted in Mexico by M. A. de Humboldt.

hardens their fibres and purifies their blood; and they are generally distinguished for their courage, their intelligence, and their love of liberty.

The same moral attributes extend to the greater part of the Indian tribes that border on New Mexico.

The *Apaches* originally inhabited the greater part of New Mexico, and are still a warlike and industrious nation. These implacable enemies of the Spaniards infest the whole eastern boundary of this country, from the Black Mountains to the confines of Cohahuila, keeping the inhabitants of several provinces in an incessant state of alarm.^a There has never been any thing but short truces with them; and although their number has been considerably diminished by wars and frequent famines, the Spaniards are obliged constantly to keep up an establishment of 2000 dragoons, for the purpose of escorting their caravans, protecting their villages, and repelling these attacks, which are perpetually renewed. At first the Spaniards endeavoured to reduce to slavery those who, by the fate of war, fell into their hands; but seeing them continually surmount every obstacle that opposed their return to their dear native mountains, their conquerors adopted the expedient of sending their prisoners to the island of Cuba, where, from the change of climate, they speedily perished. No sooner were the *Apaches* informed of this circumstance, than they refused any longer either to give or receive quarter. From that moment, none have ever been taken prisoners, except those who are surprised asleep, or disabled during the combat.

The arrows of the *Apaches* are three feet long, and are made of reed or cane, into which they sink a piece of hard wood, a foot long, with a point made of iron, bone, or stone. They shoot this weapon with so much force, that at the distance of 300 paces they can pierce a man. When the arrow is attempted to be drawn out of the wound, the wood detaches itself, and the point remains in the body. Their second offensive weapon is a lance, fifteen feet long. When they charge the enemy, they hold this lance with both hands above their head, and, at the same time, guide their horse by pressing him with their knees. Many of them are armed with firelocks, which, as well as the ammunition, have been taken in battle from the Spaniards, who never sell them any. The archers and fusileers combat on foot; but the lancers are always on horseback. They make use of a buckler for defence. Nothing can equal the impetuosity and address of their horsemen. They are thunderbolts, whose stroke it is impossible to parry or escape.

We must cease to feel astonished at the invincible resistance which the *Apaches* oppose to the Spaniards, when we reflect on the fate to which they have subjected those other Indians who have allowed themselves to be converted.

The *Keres*, who at present form the population of San Domingo, San Felipe, and San Diaz, were one of the most powerful of the twenty-four ancient tribes that formerly occupied New Mexico. They are of a tall stature, with a full figure; and possess a mild and docile disposition. They are become the vassals, or to speak more correctly, the slaves of government, which imposes on them various services, such as that of carrying burthens, or

driving mules; or they are even subjected to military service, where they are treated with all the barbarity which a white man is capable of exercising.

The countries that separate New Mexico from the two Californias are only known through the pious exertions of some Missionaries. In the seventeenth century, the *Nabaja* and *Moqui* Indians had submitted to the Missionaries; a general insurrection, however, in 1680, terminated in the massacre of these apostles of civilization. In the last half of the eighteenth century, Father Escalante penetrated as far as two great lakes, which appeared to empty themselves on the coast of New California. The water of one of them was salt. The whole of this country seems to be a plateau, little differing from that of New Biscay. One river takes its name from small pyramids of sulphur, with which its banks are covered. The *Rio Colorado* appears to flow through a fertile country, a part of which is cultivated by industrious Indians. The *Raguapiti*, the *Yutas*, and the *Yabipai*, and especially the *Moquis*, enjoy a sort of civilization. The latter live on the banks of the *Yaguesila*, which falls ultimately into the Colorado. Father Garces found in their country a town very regularly built, containing houses of several stories, and large public squares. Farther south, on the banks of the Rio Gila, the same Missionary discovered the ruins of a large town, in the middle of which was a kind of strong castle, with its sides exactly directed to the four cardinal points. The Indians who live in the neighbourhood of these memorable ruins, inhabit populous villages, and cultivate maize, cotton, and calabashes.^b These traces of ancient civilization correspond with the traditions of the Mexicans, who affirm that their ancestors repeatedly halted in these regions after leaving the country of Aztlan. Their first station was on the banks of the lake Teguyo; their second, on the Rio Gila; their third, in New Biscay, near the *presidio* of Yanos, where there are likewise the ruins of edifices, called by the Spaniards *casas grandes*.^c

To the east of the gulf of California extend fertile, agreeable, and salubrious countries, but which are still very little known, and thinly inhabited. They are comprised in the intendency of Sonora.

Pimeria is the country inhabited by the Pimas. The Missionaries have succeeded in reducing this tribe to subjection and civilization. This part of Mexico abounds in gold dust. The *Seris*, a name that recalls to our recollection a famous nation of Asia, still resist the European yoke. On the Spanish maps, the name of New Navarre appears to comprehend the three provinces of Sonora, Hiaqui, and Mayo. There are very rich mines here. From those of Sonora gold is obtained. The country is very fertile, and is well watered by considerable rivers. That of Hiaqui is the principal one. The town of *Arispe*, the seat of the intendency, and that of *Sonora*, contain 7000 or 8000 inhabitants.

The province of *Cinaloa*, better peopled and better cultivated than the preceding ones, contains some important towns, such as Cinaloa itself, with nearly 10,000 inhabitants; *Hostimuri* and *Alamos* with rich mines. To the south of this province extends that of *Culiacan*, of which the capital, the seat of an ancient monarchy, is peopled with nearly 11,000 inhabitants. On the coasts

^a Pike's Journey in Louisiana, &c. II. p. 95. 101. 103. French translation.

^b Cronica Serafica de el Collegio de Propaganda Fede de Queretaro, Mexico, 1792, quoted by A. de Humboldt, II. p. 392. 396. 410.

^c Great houses.

of this province, forests of guava, lemon, and orange trees, begin to be frequent, and the *lignum vitæ*, and palm, also grow there; but in the interior there are cold and arid mountains.^a

The great mountain chain which composes the spine of Mexico, traverses throughout its whole length the province of *New Biscay*, or the intendency of Durango. Craters of volcanoes, and a mass of iron resembling the stones that have fallen from the atmosphere, excite the attention of the naturalist. The mines of silver are both numerous and rich. The greater part of the country presents the appearance of a barren and sandy plateau. Several of its rivers, not meeting with a favourable declivity for obtaining an outlet, have spread themselves into lakes. The winters, which are often severe, are followed by suffocating heats. Scorpions are spoken of as one of the scourges of the country, their sting proving fatal in a few hours.^b

Durango, one of the most southern towns of *New Biscay*, is the capital. It contains 12,000 inhabitants.^c Almost as many are assigned to *Chihuahua*, (or *Chigagua*,) the residence of the Captain-General of the *Provincias Internas*. This town is adorned with some magnificent edifices. *Batopilas* and *Cosigirachui*, mining towns, contain from 8,000 to 10,000 inhabitants. The Spaniards of this province, always in arms against the Indians, possess an enterprising and warlike character. The *Cumanches*, the most formidable of the natives, equal the Tartars in the rapidity of their incursions on horseback. They make use of dogs as beasts of burthen. None of the Indians of this province have been reduced to subjection.

The province of *Cohahuila*, which is sometimes visited with scorching winds, abounds in corn, in wine, and in cattle. *Monclova* is an elegant town; and *Santa Rosa* possesses rich mines of silver. A little province, containing the town of *Monterey*, has preserved to itself the pompous title of the *new kingdom of Leon*, which appears to have been intended to comprehend all the north-eastern provinces. Great plains, covered with palm trees, and adapted for the cultivation of sugar and of indigo; some heights waving with oaks, magnolia, and the other trees of Louisiana; a low coast, intersected by numerous lagoons and bays, which vessels are prevented from entering by a bar of sand: such is the general description of the province of *Texas*, and that of *New Santander*. Not far from the town of Santander, the port of *Soto la Marina*, were it properly attended to, might become of some importance to this fertile but desert country. *San Antonio de Bejar*, a village composed of mud cabins covered with turf, is the chief place of the province of *Texas*, so much coveted by the Anglo-Americans, and which has officially received the name of *New Estramadura*. Some indications of mines, forests similar to those on the banks of the Ohio, a rich soil, and, generally speaking, a healthy climate, attract American adventurers hither. But in order to ascertain the value of this province, it would be necessary, by new researches, to discover if the rivers, limpid, deep, and abounding with fish, by which it is watered, are all of them, without exception, rendered inaccessible from the sea, by the bar of sand which extends along the

coast. M. de la Salle, who, in 1685, attempted to form an establishment in the bay of *St. Bernard*, did not find himself opposed by this obstacle.

The province of *San Luis de Potosi*, to the south-west of *New Santander*, contains the town of the same name, the seat of an intendency, and peopled by 12,000 inhabitants. The silver mine of *Real de Catorce*, discovered in 1773, annually produces from 750,000*l.* to 833,000*l.* sterling.^d It is the mine nearest to Louisiana.

To the south-west of the preceding provinces, extend the two intendancies of *Zacatecas* and *Guadalaxara*, forming together the kingdom of *New Galicia*. The indigenous name of the country was *Xalisco*. It was inhabited by a warlike race, who sacrificed human beings to an idol in the form of a serpent, and who even, according to the allegation of the first Spanish conquerors, devoured these wretched victims after making them perish in the flames.^e This kingdom, twice the size of Portugal, does not contain a population equal to that of Norway. *Zacatecas*, a very elevated and very mountainous country, contains a town of the same name, inhabited by thirty-three thousand individuals. At no great distance are nine lakes, which are covered with an efflorescence of muriate and carbonate of soda. Its mountains, composed of sienite, contain some of the richest veins in the world.^f

Guadalaxara may perhaps contain thirty thousand inhabitants, exclusive of Indians. It is the see of a bishop, and contains a university and a superior tribunal. The *Rio San Juan*, likewise called *Tololotlan* and *Barania*, on issuing from Lake Chapala, forms a very picturesque cataract.^g

Compostella is the chief place of a district, abounding in maize, cocoa-nut trees, and cattle. *Tonala* manufactures pottery for the consumption of the province.^h *La Purificacion* is likewise noticed as a considerable town, and the chief place of the southern part of *New Galicia*. Cochineal and sugar are its chief productions. At some distance to the north-west, is *Cape Corrientes*, a boldly projecting point. The winds and currents appear to change their direction at this celebrated promontory.

The port of *San Blas*, almost uninhabitable on account of its insalubrity and its extreme heat, is surrounded by beautiful forests, the wood of which is made use of for the royal navy, which has here its principal establishment.

The two intendancies of *Guanaxuato* and *Valladolid*, constitute the ancient kingdom of *Mechoacan*, which was independent of the Mexican Empire.

This kingdom, the name of which signifies the country *abounding in fish*,ⁱ contains volcanoes, hot and sulphureous springs, mines, and peaks of mountains white with perpetual snow; it is notwithstanding one of the most agreeable and fertile countries that can possibly be beheld. Numerous lakes, forests, and cascades, diversify the prospect. The mountains, covered with wood, leave a space for meadows and fields. The air is healthy, except on the coast, where the Indians alone can resist the humid and suffocating heat.

Of all the Americans, the natives of this country were the most dexterous marksmen with the bow and arrow.

^a Alcedo, Diccionario de las Indias, at the word Culiacan.

^b Pike's Journey to New Mexico, (French translation,) II. 122.

^c Pike makes them amount to 45,000.

^d "18 to 20 millions francs."

^e Gomara, Historia de las Indias, cap. 211. Id. Cronica della Nueva-España, cap. 219.

^f D. Garces, et D. Valentia, quoted by A. de Humboldt, II. 315.

^g Chappe de Auteroche, Voyage, p. 32.

^h Alcedo, Diccionario, at the word Tonala.

ⁱ Gomara, Nueva España, cap. 147.

The kings of Mechoacan formerly received their principal revenues in *red feathers*, of which carpets and other articles were manufactured. This curious trait calls to our recollection the inhabitants of Tongataboo. At the funeral of their kings, they immolated seven females of noble family, and an immense number of slaves, for the purpose of ministering to the deceased in the other world.^a At the present day however, the Indians, and especially the *Tarasas*, devote themselves to the labours of a peaceful industry.

Valladolid, the ancient Mechoacan, a very pretty town, and enlivened by considerable commerce, enjoys a delicious climate, and contains a population of eighteen hundred souls. The village of *Tzinzontzan*, on the picturesque shores of the lake of Pazuaro, was the residence of the ancient kings of Mechoacan.

Guanaxuato, a large town, of more than seventy thousand inhabitants, flourishes principally by its silver mines, the richest in Mexico. The mine of the Count de Valenciana was already, in 1804, nineteen hundred and sixty English feet^b in perpendicular depth, which makes it the deepest mine at present existing on the face of the globe. The profits of this single mine amount to from 125,000 to 250,000 pounds sterling.^c

The town of *San Miguel el Grande* is engaged in an extensive trade in cattle, skins, cotton cloth, swords, knives, and other works in very fine steel.^d *Celaya*, the chief place of a district, which produces two kinds of pepper, has recently had a magnificent church built in it by the Carmelites, and ornamented with Corinthian and Ionic colonnades.^e

The intendency of *Mexico*, the principal province of the empire of Montezuma, formerly extended from one sea to the other; but the district of Panuco having been separated from it, it no longer reaches the gulf of Mexico. The eastern part, situated on the plateau, contains several valleys of a round figure, in the centre of which there are lakes, at present of small extent, but whose waters appear formerly to have filled these basins. Drained and deprived of its wood, this plateau is at once subject to an habitual aridity, and to sudden inundations, occasioned by heavy rains and the melting of the snows. Generally speaking, the temperature is not so hot as it is in Spain; in fact, it enjoys a perpetual spring. The mountains with which it is surrounded still abound in cedars and other lofty trees, in gums, drugs, salts, metallic productions, marbles, and precious stones. The flat country is covered the whole year through with delicate and exquisite fruits, flax, hemp, cotton, tobacco, aniseed, sugar, and cochineal, with which they support an extensive commerce.

Besides the numerous volcanoes of which we have already spoken, some natural curiosities are met with. One of the most remarkable is the *Ponte-Dios*, or the bridge of God, a rock, under which the water has hollowed itself a passage, situated about 100 miles to the south-east of Mexico, near the village of Molcaxac, on the deep river Aquetoyac. Along this natural bridge, the traveller may continue his journey as if he were on a high road. Several cataracts present a romantic appearance. The great cavern of Dante, traversed by a river; the porphyritic organ-pipes of Actopan; and many other singular objects,

excite the astonishment of the traveller in this mountainous region, where he is obliged to cross foaming rivers upon bridges formed of the fruit of the *Crescentia pinnata*, tied together with ropes of agave.

On the very ridge of the great Mexican plateau, a chain of porphyritic mountains encloses an oval valley, the general level of which is 6700 feet above the surface of the ocean. Five lakes fill the middle of this valley. To the north of the united lakes of Xochimilco, and Chalco, in the western part of the lake of Tezeuco, once stood the ancient city of *Mexico*, to which the traveller arrived by causeways constructed in the shallow waters of the lake. The new city, although placed on the same spot, is situated on the main land, and at a considerable distance from the lakes, the waters of which have retired; it is intersected by numerous canals, and the houses are erected on piles. The draining of the lakes is still continued, by means of a canal which has been opened for that purpose, through the mountains of Sincoq, in order to protect the town from inundations. In many places, however, the ground still yields, and some buildings, amongst others the cathedral, have sunk six feet. The streets are wide and straight, but badly paved. The houses present a magnificent appearance, being built of porphyry and amygdaloid. Several palaces and private mansions have a majestic effect, and its churches glitter with metallic riches. The cathedral surpasses, in this respect, all the churches in the world. The balustrade which surrounds the great altar is composed of massive silver. A lamp of the same metal, is of so vast a size, that three men go into it when it has to be cleaned; and it is enriched with lions heads, and other ornaments, of pure gold. The statues of the Virgin and the saints are either made of massive silver, or richly gilded, and ornamented with precious stones. Palaces, private mansions, beautiful fountains, and extensive squares, adorn the interior of this city. To the north of the city, near the suburbs, is the principal public promenade, or *Alameda*. Round this walk flows a rivulet, forming a fine square, in the middle of which there is a basin with a fountain. Eight alleys of trees terminate there, in the figure of a star. But by an unfortunate proximity, immediately in front of the alameda, the eye discovers the *Quemadero*, a place where the Jews, and other victims of the terrible Inquisition, were burned alive. This detestable tribunal was finally abolished by the ex-emperor Augustin Iturbide in 1820; and this same enterprising individual, who, during his short reign, formed Lancastrian schools over the empire, has been the cause of the fine building, formerly appropriated to its operations, having been converted at present into a polytechnic school.^f Although the city of Mexico is situated in the interior of the country, still it forms the centre of an immense commerce between Vera Cruz on the east, and Acapulco on the west. The shops are absolutely overflowing with gold, silver, and jewels. This superb city, inhabited by 140,000 people, is likewise distinguished by great scientific establishments, to which, in the New World, there is nothing similar. The *botanical garden*, the *school of mines*, the *academy of the fine arts*, which has produced excellent draughtsmen, painters, and sculptors,—these are the establishments that refute the prejudices of persons who

^a Gomara, Nueva España, p. 217. in Barcia, Historiadores, t. II.

^b "1840 feet," Fr.

^c "3 to 6 millions francs."

^d Alcedo, at the word San Miguel el Grande.

^e A. de Humboldt, II. 286.

^f Bullock, p. 150.

consider the Americans as inferior in natural capacity to Europeans.

The fine arts have, it seems, suffered incalculably by the revolution. There is not now a single pupil in the academy; and its late president is now old, and blind, and poor; nor could Mr. Bullock, by profession a collector, pick up above four specimens in all Mexico worth the carriage to Europe. This slight reverse of Humboldt's immortal picture of that country, is however agreeably compensated by another, the increased happiness of the lower orders, particularly of the Indians.^a In the evenings, during the dry season, the environs of the city present a scene of pleasure, gaiety, and bustle, scarcely to be paralleled; hundreds of canoes, on the canal of Chalco, of various sizes, mostly with awnings, crowded with native Indians neatly dressed, and their heads crowned with the most gaudy flowers, are seen passing in every direction; each boat, with its musician seated on the stern, playing on the guitar, and some of the party singing, dancing, or both united, presents such a picture of harmless mirth, "as I fear," says Mr. Bullock, "is rarely to be met with at the fairs and wakes of our own country. Revolution has had its usual operation here; it has reduced the overgrown, but insecure wealth of the rich, to an independent protected competence; but it has also wiped away the tears, and broken the chains which galled the innocent people whose labours had amassed it."^b

Humboldt saw erecting, in the great square of Mexico, a colossal equestrian statue, in bronze, of the king of Spain, by M. Tolza, "a statue," says he, "which, by its imposing mass, and the noble simplicity of its style, might adorn the first cities of Europe." Even by the admission of the Spanish authors, balls, and games of hazard, are pursued with ardour, while the more noble enjoyments of the drama are less generally relished. To vivid passions the Mexican Spaniard adds a great fund of stoicism. He enters a gaming-house, loses all his money upon a single card, and then takes his *segar* from behind his ear, and smokes as if nothing had happened.^c

The floating gardens, or *Chinampas*, a kind of raft, upon which flowers and vegetables are cultivated, give a singular appearance to the Mexican lakes, but their number diminishes every day. Yet with all this civilization, the mechanical arts thrive rather as encouraged by the profusion of wealth among the rich, than from inherent improvement. The use of the great saw is still unknown, and the modern Mexicans, like the Greeks in the days of Homer, are ignorant that one tree can afford more than one plank, or of other means of procuring this than by the hatchet. Their work in gold and silver-chasing, and the like, is all performed by the hand; and even the minting process is described as excessively awkward and tedious. Many of their best mines have been deserted from want of skill in the proper means of exhausting their water; and companies have been formed in England, on the Rhine, and in America, besides many private individuals, such as the ingenious traveller from whom we derive our information, who calculate on realising fortunes by more judicious operations. The ascent from Vera Cruz to Perote is so steep as to require nineteen mules to draw

the beam of a steam engine; but the enterprise of the above individuals is daily multiplying this powerful auxiliary to the miners in the empire of Mexico.^d

Mexico preserves few monuments of antiquity. The ruins of aqueducts; the stone of sacrifice, and the calendar stone, both of which are placed in the great square of the city; manuscripts or hieroglyphical pictures, badly preserved in the archives of the vice-regal palace; and finally, the colossal statue of the goddess *Teoyamiqui*, lying on its back in one of the galleries of the University, are all that remains worthy of notice in this city. But to the north-east of the city and of the lake Tezcucoc, on the hills of *Teotihuacan*, are seen the imposing remains of two pyramids, consecrated to the sun and moon, and, according to some historians, constructed by the *Olmecs*, an ancient nation that came to Mexico from the east, that is to say, from some country situated on the Atlantic Ocean.^e The pyramid, or house of the sun, (*Tonatiuytzaqual*), is 171 feet high, and its base measures 645 feet; that of the moon, (*Meztli-yltzaqual*), is thirty feet smaller. These monuments appear to have served as models for the *Teocallis*, or houses of the gods, constructed by the Mexicans in the capital and other parts of the country: but the pyramids are incased by a thick wall of stone. They formerly supported statues covered with very thin plates of gold. Numerous small pyramids, which appear to have been dedicated to the stars, surround the two great ones. Another ancient monument worthy of attention, is the military intrenchment of Xochialco, not far from the town of Cuernavaca. This also is a truncated pyramid of five courses, surrounded by ditches, and faced with rocks of porphyry, upon which, amongst other pieces of sculpture, are to be distinguished figures of men, seated with their legs crossed, in the Asiatic fashion.^f All these pyramids exactly face the four points of the compass.

In that part of the province which is situated to the north-east of the capital, the town of *Queretaro*, peopled by 30,000 or 40,000 inhabitants, rivals the finest cities of Europe in the architecture of its edifices. It is enriched by the manufacture of cloth and morocco leather. Formerly, according to the tradition of the Indians, *Tula*, or *Tollan*, was inhabited by giants. The bones that are found there are no doubt the remains of some great quadruped.

In the southern part of the province we first of all meet with *Toluca*, where our admiration is excited by a very old tree of the species denominated *Cheirostæmon*, or the hand-tree, a member of the Malvaceæ. The extraordinary shape of its flowers, imitating the figure of a hand, and its enormous magnitude, rendered it an object of curiosity to the Indians. But it is not a solitary specimen, as was imagined, for the species is spread over the mountains of Guatimala. *Tasco* boasts of an elegant parish church, built and endowed by Joseph de la Borde, a Frenchman, who had accumulated immense wealth by working the Mexican mines. The mere construction of this edifice cost him two millions of francs. Reduced some time afterwards to extreme poverty, he obtained from the Archbishop of Mexico permission to sell to the Metropolitan church of the capital, the magnificent *sun*, ornamented with dia-

^a Compare p. 261. 262. above.

^b Bullock, p. 163.

^c Description of Mexico, in the *Viajero Universal* of D. Estala, t. XXVI. p. 251—380. Humboldt, II. chap. 8. Chappe d'Aueroche.

^d Bullock, 434. 425.

^e Siguenza, quoted by A. de Humboldt, II. 157.

^f A. de Humboldt, II. p. 162.

monds, which, in happier times, he had consecrated to the tabernacle of his church at Tasco. These reverses of fortune, improbable as they would be in a romance, are, nevertheless, common in Mexico.

On the shores of the Pacific Ocean, under a burning sky, we find the two ports of *Zacatula* and *Acapulco*. An opening in the mountains, by giving access to the winds from the north, has diminished the unhealthiness of the latter of these ports, one of the finest in the world.

The province of *Puebla de los Angeles* likewise bears the name of *Tlascalala*, from the ancient republic which maintained itself there, independent of the despots of Mexico. The territories of this republic, and that of *Cholula*, contain monuments of ancient civilization. The truncated pyramid of Cholula, a hundred and seventy-two feet in height, on a base of thirteen hundred and fifty-five feet in length, is constructed of brick. To form an idea of the size of this monument, let us figure to ourselves a square four times larger than the *Place Vendome* at Paris, covered with a pile of bricks, which rises to double the height of the Louvre.^a This pyramid formerly supported an altar, consecrated to *Quetzalcoatl*, or "the god of the air," one of the most mysterious beings of the Mexican mythology. This deity, according to the traditions of the Aztecs, was a white man with a beard, like the Spaniards, who were imagined by the unfortunate Montezuma to be his descendants. *Quetzalcoatl* was the founder of a sect, who devoted themselves to severe penance, a legislator, and the inventor of several useful arts; but he could not, at last, resist an anxious desire which he felt to revisit his native country, called *Tlapallan*, probably identical with the *Huehue-Tlapallan* country, from which the Toltecs derived their origin.^b

The intendency of Puebla, very populous, and very well cultivated in its mountainous region, presents, towards the Pacific Ocean, vast countries, altogether abandoned, notwithstanding their natural fertility. The last poor remains of the Tlapanecs, inhabit the environs of Tlapa. In the populous part is situated the capital, *La Puebla de los Angeles*, or the "City of the Angels;" the fourth town in all Spanish America in respect of its population, which is estimated at 68,000 individuals. Glass, and armourers' cutlery, such as swords, bayonets, &c. are manufactured here. The town of Tlascalala was formerly a species of federative republic. Each of the four hills, on which it was built, had its own Cacique or war-chief; but these depended on a senate chosen by the whole nation. The subjects of this republic are said to have amounted to 150,000 families. This nation, which enjoys some peculiar privileges, is at present reduced to 40,000 persons, who inhabit about a hundred villages. One would almost feel disposed to think that a fatal destiny avenges on their heads the crime of having assisted Cortez in subjugating the independence of Mexico. *Cholula*, a sacred town anterior to the conquest, reckons a population of 16,000 souls. The environs of *Zacatlan* are peopled by the nation of the Totonacs. Like the Tlapanecs, these indigenous natives speak a language entirely different from that of the Mexicans, or Aztecs. They had adopted the barbarous and sanguinary mythology of the Mexicans; but a sentiment

of humanity had made them distinguish, as being of a different race from the other Mexican divinities, the goddess *Tzintéotl*, the protectress of harvests, and who alone was satisfied with a simple offering of fruits and flowers. According to a prophecy current amongst them, this peaceful divinity was one day to triumph over the gods that were intoxicated with human blood. The introduction of Christianity has verified the prediction. Tezcuco, the Athens of ancient Mexico, and still affording a rich and almost unexplored field to the antiquary, in the number and richness of its ruined palaces, baths, and pleasure grounds,^c contains 5000 inhabitants, only a tenth part of its population before the conquest. At *Atlixco*, the curiosity of the traveller is excited by an enormous cypress of seventy-three feet in circumference, and consequently, almost equal in magnitude to the famous Baobab of Senegal, which it surpasses in the beauty of its form.^d

The intendency of *Vera Cruz* embraces a strip of maritime districts, the lowest part of which, almost a desert, contains little else than sands and marshes, placed under a burning climate. In the province of *Guasteca*, we meet with the town of *Panuco*, situated on a navigable river, at the mouth of which is the port of *Tampico*, obstructed like all the rest on that coast by sand banks.

In the thick forests of *Papanila*, on the sides of the Cordilleras, rises a pyramid of a still more beautiful form than those of Teotihuacan and Cholula. It measures nineteen and one half yards in height, upon a base of twenty-eight yards,^e and is constructed of porphyritic stones, very regularly chiselled, and covered with hieroglyphics.^f

The beautiful town of *Vera Cruz*, the centre of a wealthy trade, which, in time of peace, Mexico keeps up with Europe, owes nothing to the kindness of nature. The rocks of madrepora, of which it is built, have been taken up from the bottom of the sea. The only water fit for drinking, is collected in cisterns. The climate is hot and unhealthy; arid sands surround the town to the north, while, to the south, the weary eye has nothing to rest on but ill-drained marshes. The harbour, which is insecure, and of difficult access, is protected by the fort of *St. Juan d'Ulua*, which is built on a rocky islet at immense expense. The population, estimated at 16,000 inhabitants, is often swept away by the yellow fever. To enjoy refreshing coolness, and all the charms of nature, the rich inhabitants often repair to *Xalapa*, a considerable town, situated on one of the terraces by which the central plateau sinks towards the Gulf of Mexico. This town has given its name to the medicinal root denominated Jalap. The fortress of Perote, looked upon as one of the keys of Mexico, is situated in the environs of Xalapa.

The province of *Tobasco*, the most southern portion of the intendency of Vera Cruz, is covered with forests, which produce dye woods, and resound with the roar of the Mexican tiger. In the cultivated spots, which are but thinly scattered, maize, cacao, tobacco, and pepper, are produced:

The intendency of *Oaxaca*, called also *Guazaca*, after an Indian town, contains the two ancient countries of the *Mixtecs* and the *Zapotecs*. This fertile and salubrious re-

^a A. de Humboldt, Views and Monuments of America, p. 30, and the plates. (Fr.)

^b Idem, Mexico, II. p. 71. (Fr.)

^c Bullock, p. 210. Humb. Ess. Pol. II. 184.—Tr.

^d A. de Humboldt, II. p. 274.

^e "18 by 25 metres."

^f Marquez, Monumenti d'Architettura Mexicana, tab. I. A. de Humboldt, Vues. et. Monumens, p. 26. Essai sur le Mexique, II. 345.

gion abounds in mulberry trees, cultivated for the sake of the silk worm. A great deal of sugar, cotton, corn, cacao, and other fruits, grow there; but cochineal constitutes its principal riches. Its granitic mountains conceal mines of gold, silver, and lead, which, however, are neglected. Several rivers bring down gold dust, which the women are employed in collecting. Rock-crystal is likewise met with. *Guaxaca*,^a otherwise called Antequera, is a town of 24,000 inhabitants, situated in the delicious valley which Charles the Fifth bestowed on the descendants of Cortez, with the title of the Marquisate de Valle.^b Very fine wool is obtained here, and excellent horses crowd its rich pastures, which are watered by a beautiful river, and refreshed by a temperate and humid atmosphere. At the mouth of the river Guaxaca they have established a dockyard for the building of vessels.

Tehuantepec has a harbour on the Pacific Ocean, which, in spite of its natural disadvantages, derives importance from being the central depot between Mexico and Guatemala. The ruins of edifices at *Mila* indicate a very advanced state of civilization. The walls of the palace are decorated with what architects denominate the *Grecian scroll*, and *labyrinths* or *meanders*, executed in Mosaic, the design of which resembles what we see on the vases named Etruscan. Six unfinished columns of an imposing magnitude, that have been found here, are the only ones that have been hitherto discovered among the monuments of America.^c

The peninsula of *Yucatan*, or the Intendency of Merida, is little better known now than it was in the sixteenth century. Hernandez and Grijalva found it peopled by a civilized nation, who were dressed with some degree of luxury, and inhabited houses built of stone. They were possessed of instruments, vases, and ornaments made of gold. Some of these articles were adorned with a species of Mosaic, executed in turquoise. Their *Teocallis* were bathed with the blood of human victims.^d The indigenous natives speak the *Maya* language.

The country, which is very flat, is traversed, it is said, by a chain of low hills; and the climate is hot, but dry and healthy. This district abounds in cochineal and logwood; and in honey, wax, and cotton, from the latter of which they manufacture a good deal of printed cloth. But logwood is the principal object of commerce. On the coast, a considerable quantity of ambergris is picked up.^e The shores of this peninsula are edged, as it were, with a sand bank, which sinks with very great regularity at the rate of one fathom per league.^f The maritime districts every where present a flat and sandy country. There is only a single chain of elevated land, which terminates in a promontory between Cape Catoche and Cape Desconocida.^g The coasts are covered with mangroves, interwoven together by impenetrable hedges of althea and bamboo; and the soil is filled with sea shells. The droughts in the flat country commence in February, and soon become so general, that not a drop of water is any where to be seen. Their only resource is the wild pine, which, in its thick and spreading foliage, preserves some moisture; and water is drawn from it by incision.^h On the northern coast, at the mouth of the river Lagaitos, at the distance of 400

yardsⁱ from the shore, the navigator is astonished to perceive springs of fresh water rising up in the midst of the salt waves. These springs are called the Mouths of *Conil*.^k

Merida, the capital of the province, is a town containing 10,000 persons, inhabited by a nobility who are far from being rich. The town of *Campeachy* carries on a little trade with the salt extracted from its salt works, some cotton cloth, and logwood. The island of *Cozumel*, or, more properly, *Acucemil*, was celebrated for an oracle, to which the people of the continent repaired in crowds. Before the arrival of the Spaniards, the natives worshipped a wooden cross, the origin of which was unknown. It was invoked to procure rain, the chief want of this arid island.^l

We have distinguished on our maps, under the name of *English Yucatan*, that part of the peninsula which lies to the south of the river *Hondo*, and of the Spanish military post of *Salamanca*. This country, better watered and more fertile than the rest of the peninsula, is inhabited by independent Indians. The English, however, cut logwood and mahogany there, and have built the town of *Balize*, which is the residence of a titular Indian king, who receives the commission of his appointment from the government of Jamaica, and is installed by the English garrison. The islands of *Rattan*, *Turneff*, and others, washed by the singularly transparent waters of the Gulf of Honduras, are occupied by small English colonies.^m

The name of *Guatemala*, or, more correctly, *Quauhite-mallan*, that is to say, the place full of trees, originally belonged to a single district. The Spaniards have applied it to a captain-generalship, which bears the title of kingdom, and to one single province, comprehended within this kingdom.

The province of Guatemala, properly so called, extends from the confines of Guaxaca to those of Nicaragua, along the Pacific Ocean. The climate in general is hot and moist. The plains are fertile, both in American and European fruits of a delightful flavour. Maize produces 300 for one, as well as the cacao, with which they supply the whole kingdom of New Spain. Indigo of a superior quality is produced there, and the annatto is cultivated. The forests with which the mountains are covered give shelter and food to animals that are still imperfectly known; and many nondescript shrubs are met with, from which flow valuable balsams. Many ports on the South Sea afford this province great facility for carrying on an advantageous commerce with Peru, Terra Firma, and New Spain. The coasts abound with fish, but fishing is not followed with any considerable activity. They likewise neglect their silver mines, which are said to be rich; but they collect the sulphur that floats on the surface of several lakes. The whole province is filled with volcanoes, and exceedingly subject to earthquakes.

Guatemala is the capital both of the province and kingdom of that name; and is the see of an archbishop, and the seat of a University. The old city was destroyed on the 7th June, 1777, by one of the most tremendous earthquakes of which we have any record. On the 3d of June, the agitated sea rose from its bed; the two volcanoes adjacent to the town appeared to boil; one of them poured

^a Called also Oaxaca. ^b Marquisate of the Valley of Oaxaca.—P.

^c A. de Humboldt, *Vues et Monumens*, p. 270. vol. I. p. 159. English T.

^d Gomara, *Historia de las Indias*, ch. 51—54. ch. 49.

^e Alcedo, *Diccionario*, at the word Yucatan.

^f Dampier, *Voyage*, t. III. p. 234.

^g Idem. t. III. p. 214.

^h Dampier, *Voyage*, t. III. p. 266.

ⁱ "200 toises."

^k A. de Humboldt, *Essai sur le Mexique*, II. p. 329.

^l Gomara, *Cronica de Nueva España*, ch. 14 and 15.

^m Henderson's *Account of Honduras*, (London, 1809,) and different Political Journals [newspapers] of London of 1816.

out torrents of water, the other floods of burning lava. On every side the earth was seen to gape in deep fissures. At length, after five days of unutterable anguish, the abyss opened, and the city, with all its riches, and 8000 families, was instantly swallowed up, while torrents of mud and sulphur, rushing over the ruins, obliterated for ever all vestiges of its former existence. The spot is now indicated by a frightful desert. The new city is built at the distance of four leagues from the site of the old town. We must not omit noticing *Amatilan*, or the town of letters, so called in consequence of the talent which the Indians, its inhabitants, displayed for carving hieroglyphics on the bark of trees. The district of *Soconusco*, of which the chief place is *Gua-guettlan*, produces the best cacao of all America; but very little of it is met with in commerce.^a In the district of *Quesaltenango*, very fine alum and sulphur are found. *Solola* produces the best figs in the kingdom, and a good deal of cotton is spun there. Two volcanoes are met with in the district, the one called *Atilan*, and the other *Solola*.^b The district of *Suchitepec*, fertile in annotto, is subject to excessive rains.

In the interior of the kingdom of Guatemala, is situated the province of *Chiapa*. The Indians of Chiapa formed a state which was independent of the emperors of Mexico. This republic perhaps merited the second place after that of Tlascalala, for its progress in civilization, and more especially for its manufacturing industry. The Chiapanese adopted the calendar and chronological system of the Mexicans; but their mythology was distinguished by a deified hero named *Votan*, to whom one day of the week was consecrated.^c This is the only resemblance which this Chiapanese divinity bore to the *Wodan* of the Saxons, and the *Odin* of the Scandinavians. This people defended themselves with courage against the Spaniards, and obtained honourable terms of capitulation from their conquerors. Happily the soil of Chiapa is not rich in mines, a circumstance which has secured to the natives the preservation of their liberty, and the privileges which had been granted them. Modern travellers have not visited this isolated country, where, two centuries ago, Thomas Gage found a happy, social, and industrious people. *Chiapa dos Indios*^d reckoned four thousand families, while its woollen manufactories, its trade in cochineal, and its *naumachias*, or mock fights, celebrated on the river, all combined to render it an animated and delightful town. *Chiapa dos Españos*, tentimes less populous, was the seat of the governor and of an archbishop. These accounts are repeated in every geographical work for want of something better. It is proper, however, to make known their date.

A Spanish geographical dictionary gives recent and curious details respecting the province of *Vera Paz*, which, on the north, is bounded by Yucatan, and on the west, by Chiapa.^e The capital of Vera Paz is called *Coban*. It rains nine months in the year in this province; and the country abounds in fruits and flocks. In the forests very large trees are met with, from which a fragrant odour is diffused, and from which distils an odoriferous resin, which resembles amber. Different kinds of gum, balsam, incense, and dragon's blood, are also collected. Canes of a hundred feet long are found, and of such a thickness, that

from one knot to another twenty-five pounds of water are contained. The bees of this region make a very liquid honey, which, after becoming acid, is made use of, they say, instead of orange juice. The forests are full of wild animals, amongst which Alcedo distinguishes the *Tapir* or *Danta*. When enraged, this animal shows his teeth like the wild boar, and, it is asserted, cuts through the largest trees.^f Its skin is six fingers thick, and, when dried, resists every kind of weapon. Very large bears are also met with.

The province of *Honduras* is very little known. It extends from that of *Vera Paz* to that of *Nicaragua*. The first Spanish navigators perceiving a great number of pom-pions floating along the banks of the rivers, called it the Coast of *Hibueras*, that is to say, the Coast of Pom-pions. The most western part of this province contains the little Spanish towns of *Comayagua* and *Truxillo*. The latter of these has been built near a lake, where floating islands, covered with large trees, move from place to place at the discretion of the wind.^g Near the river *Sibun*, caverns have been discovered, or rather immense subterranean galleries, which run under several mountains, and appear to have been hollowed out by ancient currents.^h The interior of the country is inhabited by a savage and untractable nation, the *Mosquito-Sambos*. The coasts, especially near Cape *Gracios a Dios*, are occupied by another tribe of Indians, whom the English navigators denominate the *Coast Mosquitoes*. This appellation originates in the insupportable cloud of Mosquitoes, or stinging flies, that here torment the wretched inhabitants, and compel them to pass a part of the year in boats on the rivers. The Mosquito Indians of the coast, a tribe governed by aristocratic chiefs, do not reckon more than fifteen hundred warriors. We are unacquainted with their notions of religion; but, according to the older voyagers, they divided the year into eighteen months of twenty days each, and they termed the months *Ioalar*, that is to say, a moveable thing,—a very remarkable denomination, because it evidently approaches the word *Iol*, by which the ancient Scandinavians designated the festival that terminated the year,—a term which appears also to have signified a *wheel* or *cycle*. Similar divisions of the year into eighteen months prevailed among the Aztecs of Mexico.ⁱ Each month consisted of twenty days, and five complementary days were added at the end of the year, which was denominated *Cempohualihuitl*, from *cempohualli*, twenty, and *ilhuitl*, festival. The cacique of those Mosquitoes who inhabit the coast between Black River and Cape *Gracios a Dios*, lately sold^k or transferred that territory to a person of the name of Gregor Mac Gregor, who had attained some notoriety in the late Colombian struggle for liberty. His feeble attempts at colonising this dreary region have ended in disappointment, and in the total ruin of the settlers, many of whom sunk under the combined effects of climate and the horrors of despair. At Balize, the English keep up establishments, which render them masters of the country. In 1800 or 1801,^l the Spaniards attacked these posts, but found them too well defended and too well supplied to be taken by surprise, as they had vainly flattered themselves. It is to the unfortunate Colonel Despard, and

^a Alcedo, Diccionario.

^b Idem. *ibid.*

^c Bishop de la Vega, quoted by Humboldt, *Vues et Monumens*, p. 148.

^d *Chiapa of the Indians*. ^e Alcedo, Diccionario, at the word *Vera Paz*.

^f Probably the hardest wood, in the Spanish original.—Ed.

^g Gomara, *Historia de las Indias*, cap. 55.

^h Henderson's Account of Honduras.

ⁱ Humboldt, *Researches*, Eng. vol. I. p. 281.

^k April 29, 1820. At Cape *Gracios a Dios*.

^l In 1798 the Spaniards attacked Balize, but were speedily repulsed. The colony has been since unmolested.—Ed. *Encyc.*—P

to the great Nelson, that England is indebted for the systematic arrangement which is established in these little colonies. In 1769 they exported 800,000 feet of mahogany, 200,000 lbs. of sarsaparilla, and 10,000 lbs. of tortoise shell, besides tiger and deer skins.

The province of *Nicaragua* would deserve, for itself alone, a more extended topographical account than we can devote to all Mexico together; but when recent and authentic materials are wanting, a judicious criticism would never think of idly repeating all the details that are met with in the older narratives. The elevation and direction of the mountains, in this part of the Mexican isthmus, are still very little known. According to the respectable testimony of Gomara,^a and almost all the accounts and maps that have been published, the great lake of Nicaragua, covered with beautiful and populous islands—amongst which only one contains a volcano, named *Omo*, that always continues burning—has no outlet towards the South Sea; all its waters descending by the river St. Juan, in the direction of the Atlantic Ocean. This river, the scene of Nelson's earliest exploits, forms about thirty inconsiderable falls before it reaches the marshy shores of the sea, where a pestilential air, and Indians, distinguished alike for their perfidy of character, and the ferocity of their disposition, fill the most intrepid navigators with alarm.^b The lake, then, is situated on a plateau, but at what elevation? "The coast of Nicoya," says Dampier,^c "is low, and covered with shrubs. To reach San Leon de Nicaragua, one must travel twenty miles across a flat country, covered with mangroves, pasture land, and plantations of the sugar cane." These remarks of a judicious observer, appear to indicate that there is no considerable chain of mountains between the Lake of Nicaragua and the Pacific Ocean.^d The physical geography of this country is unquestionably possessed of great interest, and yet it is totally neglected.

Among the numerous volcanoes of this country, that of *Masaya*, three leagues (Castilian) from Granada, and ten from Leon, appears to be the most considerable. Its crater, which is half a league in circumference, and 250 fathoms in depth, ejects neither ashes nor smoke. The burning matter, which is perpetually boiling within it, diffuses so intense a light through the air, that it is visible at more than twenty leagues. So much, in fact, does it resemble gold in a state of fusion, that the first Spaniards actually supposed it to be this metal, the object of their anxious search; and stimulated by their avaricious temerity, vainly attempted to seize, with iron hooks, some of this very singular lava.^e

No mines have as yet been discovered in the province of Nicaragua; but it is fertile in every description of fruits, and abounds in large and small cattle, especially in mules and horses. They also carry on a great trade in cotton, honey, wax, anise-seed, sugar, cochineal, cacao, salt, fish, amber, turpentine, and petroleum, together with different balsams and medicinal drugs. The palm trees grow to a colossal size. *Leon*, the capital, is situated on the margin of a lake, which empties itself into that of Nicaragua. Its inhabitants, rich, voluptuous, and indolent, derive but little advantage from the excellent port of *Realejo*, formed by a bay of the South Sea. The town of *Nicaragua*, not far

from the gulf of *Papagayo*; that of *Granada*, on the lake of Nicaragua; and that of *Xeres*, near the gulf of *Fonseca*, covered with wooded islands, have the reputation of being considerable towns; but we have no recent and authentic description of them.

The indigenous natives of Nicaragua speak five different languages. The *Choroteca* seems to be that of the principal indigenous tribe. It bears no kind of affinity with the Aztec or Mexican, which had been rendered common, previously to the arrival of the Spaniards, by the invasion of an Aztec colony. These new comers alone were possessed of books, composed of paper and parchment, in which they painted, in hieroglyphical figures, their sacred rites, and the political events of their country. It would appear that the Chorotecs did not understand writing. They reckoned eighteen months, and an equal number of great festivals. Their idols, different from those of the Aztecs, were, nevertheless, honoured by an equally sanguinary worship with that of Mexico; and in like manner the men also ate a part of the flesh of the women, children, and slaves, who had been immolated by their priests. Although liable to be offered in sacrifice, their women exercised great power.^f The Spaniards, on their arrival, discovered spacious palaces and temples, surrounded by commodious mansions for the nobility; but the common people lived in a state of great misery, and, in many places, had actually no other shelter than a kind of nest, fixed upon trees. Unwritten laws or customs, regulated the punishment for theft and adultery, as well as the sale of lands. The warriors shaved their head, with the exception of a single tuft that was left growing upon the top. Their goldsmiths worked with dexterity in painter's gold.^g The art of medicine was exercised by old women; who took into their mouth the decoction of certain herbs, and blew it through a piece of sugar cane into the patient's mouth. Young married women were often yielded up to the lords or caciques before the consummation of the marriage; and the husband considered himself honoured by this grovelling sacrifice.^h

The province of *Costa Rica* contains no mines, and hence it has been said that this name was ironically applied to it; but its excellent ship timber, its rich pastures, and its picturesque scenery, afford abundant reasons for this appellation. Cattle, and especially hogs, swarm here to an extraordinary degree. In the *Gulf of Salinas* the muscle yielding purple is caught. *Carthago*, a flourishing town, situated in the interior, is the capital of this province.

On a gulf of the Pacific Ocean we meet with the town of *Nicoya*, inhabited by carpenters, where vessels are built and repaired. They likewise manufacture there what are called cloths of Segovia.

The province of *Veragua* is still less known than the preceding. This little country, which appears at one time to have formed part of the general government of Guatemala, and, at another, part of that of Terra Firma, is covered with mountains, forests, and pasture ground. It is also said that silver mines exist there; but they are either not worked at all, or with very little exertion. *San Yago* is the capital. The descendants of Columbus, in the female line, bear the title of Dukes of Veragua.

^a Gomara, *Historia de las Indias*, ch. 202.

^b MS. Notes of M. Dubécé.

^c Dampier, *Voyage*, I. p. 231. 233.

^d See page 252. above.

^e Gomara, ch. 203.

^f "Or moulu."

^g Gomara, *Hist. de las Indias*, chap. 206.

^h Gomara, ch. 206.



BOOK LXXXVI.

THE DESCRIPTION OF AMERICA CONTINUED.

General Physical Description of Spanish South America.

WE now enter upon the richest and most fertile, the healthiest, the most picturesque, and excepting Africa, the most extensive peninsula of the world. While gratitude would assign to the northern division of the western continent the name of Columbia, the division now under consideration, which has received the name of South America, would with more propriety and justice be called briefly *America*. According to geographical writers, this vast peninsula contains a surface of 95,000 square leagues, of twenty-five to an equatorial degree. Nearly three-fourths of this expanse of country is contained in the Torrid Zone. Its greatest breadth is between *Cape St. Augustin*, or *Cape St. Roque*, in Brazil, and *Cape Blanco*, in Peru, a distance of 1600 leagues. The length of this peninsula ought in strictness to be calculated from *Point Gallinas*, near *Cape de la Vela*, in *Terra Firma*, in 12° of north latitude, to *Cape Froward*, in *Patagonia*, in 54° south latitude; which, in that case, would give it an extent of 1650 leagues: but it should rather be considered as reaching fifty leagues farther south, to *Cape Horn*, in *Terra del Fuego*, in 56° of latitude; for the islands which compose *Terra del Fuego* are closely attached to *America*, and in looking at the terrestrial globe the eye can scarcely perceive the distinction.

The physical geography of this great peninsula presents so much simplicity in its general character, that it is perfectly easy to comprehend its individual features. A plateau, in general, elevated 12,000 feet,^a and crowned by chains and insulated peaks of mountains, forms the whole western region of *South America*. To the east of this tract of *high land*, there is an expanse of country two or three times broader, composed of marshy or sandy plains, furrowed by three immense rivers, and by numerous streams; and still farther to the east rises another tract of *high land*, less elevated, and of less extent than the western plateau; and these three constitute the whole of the *South American peninsula*. The Spaniards occupy, or claim, the whole western table land, and the greater part of the plains; the Portuguese possess the table land on the eastern side. With the exception of the great rivers which traverse several different territories, the general physical description of *South America* may be arranged under its two great political divisions.

The majestic rivers of *South America* leave far behind them those of the old world, both by the length of their course, and the great breadth of their channels. The su-

perb Amazon claims the first rank. This river is formed in the *Andes* by the union of several branches, which themselves are considerable rivers. According to *La Condamine*,^b the *Ucayal* is the principal one; and indeed it is the *Ucayal*, or one of its branches, which all the early historians of *Peru* have considered as the principal river of this region.^c But this river is itself formed of two branches; the one is the ancient *Maranon* or *Pari*, which takes its rise in the lake *Chincay*, to the north-east of the city of *Lima*, and makes a long circuit in the *Andes* before it joins the *Apurimac*, which, according to the maps of *La Cruz d'Olmedilla*, appears to be the principal branch of the *Ucayal*; the other branch, the *Apurimac*, comes from the environs of lake *Titicaca*. Its source is in the *Andes*, to the north-east of the town of *Arequipa*. The *Ucayal*, both under the latter name and that of the *Apurimac*, traverses mountain passes almost inaccessible, desert forests, and vast solitudes, where, no doubt, it winds its course amidst picturesque beauties, which await another *La Condamine* to describe them. Nevertheless, according to the assertions of *Fathers Girbal* and *Rodriguez Tena*, the *Apurimac* receives the river *Beni*, which rises to the south of the town of *La Paz*, sixty leagues farther south than the sources of the *Apurimac*.^d It is probable that this large river will at last be discovered to be the principal branch of a system of streams, as vast as it is complicated. It is still possible, however, that the *Beni* only communicates with the *Apurimac* by means of a branch similar to the *Casiquiari*.

The other principal branch of the Amazon is the stream which flows from the lake of *Lauricocha*, a lake situated very near the source of the ancient *Maranon*, or the lake *Chincay*. The river *Lauricocha* is called the new or the *High Maranon*. It is commonly looked upon as the principal branch of the Amazon, although, in reality, this rank belongs to the *Ucayal*. The *High Maranon* becomes navigable near the town of *Jaen*, where it flows through one of those majestic narrows, called by the Spaniards *Quebrada*. Two very lofty precipices of rock, which exactly correspond with one another, leave between them a narrow ravine, where, from a breadth of 250 fathoms, the river is reduced to twenty-five, without, however, its current becoming more rapid.

From *San Joaquin d'Omaguas*, the *Ucayal* and the *High Maranon* roll their united waves across an immense plain, where, from every side, other streams bring down their tributary waters. The *Napo*, *Yupura*, *Parana*, *Cu-*

^a "2000 toises."

^b Abridged account of a Voyage, &c. p. 69.

^c Acosta, *Hist. Nat. Ind.* p. 164. Montolvo, *Sol del Nuevo Mundo*, p. 7. Garcilaso de la Vega, I. p. 294. Calancha, *Hist. of Peru*, p. 50.

^d Travels of Father Girbal, in the *Mercurio Peruano*.

chivara, Yutay, and Puruz, would, in any other part of the world, be looked upon as considerable rivers. Here, however, they belong merely to the third or fourth rank. The *Rio Negro*, which comes from Terra Firma, and which merits the name of a great river, is swallowed up in the vast current of the Amazon.

As far as the confluence of the *Rio Negro* and the Amazon, the Portuguese term this latter river *Rio dos Salmoens*,^a or the fish river. It is not till afterwards that it is called the Amazon, for which many authors, in imitation of the Spaniards, substitute the denomination of Maranon or *Orellana*;^b but the poetical name of Amazon appears to us at once more harmonious, and more exempt from useless discussion. It is unnecessary to add that, in adopting this name, we do not admit the historical truth of certain exaggerated stories, in which the bravery of a band of women gave occasion for the revival of fictions equally extravagant as those of the Greeks, respecting the existence of a nation of Amazons.

The *Madeira*, or the river of the woods, is the greatest of all the tributary streams of the Amazon. It is in some measure a principal branch of that river. It comes from as great a distance as the Ucayal; being formed by the union of the Mamori, of which the principal branch, called the *Guapihi*, takes its rise in *Cochabamba*, and the river of the Chiquitos, denominated the river of *Santa Madalena* or *Guapore*.^c

The great rivers *Topayos* and *Xingu* come from the same quarter as the *Madeira*. They empty themselves into the Amazon. But as for the *Tocantins* or *Para*, which receives the *Aragua*, we ought to look upon its mouth as an independent outlet, although united to the Amazon by a branch of communication.

The breadth of the Amazon varies from half a league to a league towards the termination of its course. Its depth exceeds 100 fathoms. But below its confluence with the *Xingu*, and near its mouth, it resembles the sea, and the eye can scarcely discern at the same moment both its banks. The tide is felt at the distance of 250 leagues from the sea. *M. de la Condamine* imagines that the swell is occasioned by the tide of the preceding day, which is propagated up the river.^d Near its mouth there is a dreadful struggle between the water of the river, which has a constant tendency to flow into the sea, and the waves of the ocean, which press forward to enter the bed of the river. We have already sketched a description of it.

The second rank unquestionably belongs to that river which the Spaniards denominate the *Rio de la Plata*, or the river of Silver, which is formed by the union of several great streams, among which the *Parana* is regarded as the principal branch. Indeed the natives themselves give this name to the whole river; the term *La Plata* being derived from the Spaniards. The *Parana* takes its rise in the environs of *Villa del Carmen*, to the north of *Rio Janeiro*, and is increased by a multitude of tributary streams, in the mountainous country through which it flows. What is called the great cataract of the *Parana*, not

far from the town of *Guayra*, is a long *rapid*, where the river, for an extent of twelve leagues, rushes through rocky precipices, rent into the most frightful chasms.^e When it has reached the great plains, the *Parana* receives, from the north, the *Paraguay*, a very considerable river, which takes its rise on the plateau called *Campos Paresis*, and, by overflowing its banks in the rainy season, forms the great lake *Xarayes*, which consequently has only a temporary existence. The *Paraguay*, before it unites itself with the *Parana*, receives the *Pilcomayo*, a great river which comes from the environs of *Potosi*, and serves for the navigation of the interior, and the conveyance of articles connected with the mines.^f The river *La Plata* likewise receives the *Vermejo* and the *Salado*, in the direction of the *Andes*, and the *Uruguay*, on the side of *Brazil*. Its majestic course is full as broad as that of the *Amazon*; and its immense estuary might even be considered as a gulf; for it almost equals the *British channel* in breadth.

As the third great river of South America, we must next enumerate the *Oronoko*;^g but it is far from equalling the two others, either in the length of its course or the breadth of its stream. According to *La Cruz d'Olmedilla*, it rises in the small lake of *Ypava* in 5° 5' north latitude. From thence it winds in a spiral form, and first enters the lake of *Parima*, the existence of which has been ascertained by *Don Solano*, governor of *Caraccas*; but which, after all, owes its origin perhaps to the temporary overflowing of the river. If the country were a plain, we should compare the lake of *Parima* with that of *Xarayes*; but as it is at least a hilly country, we imagine that this famous lake resembles the great and almost permanent inundation which is formed by the *Red River* in *Louisiana*.^h After issuing from this lake by two mouths, as is asserted, it receives the *Guayavari*ⁱ and several other rivers, and enters the ocean through a large delta, after a course of 270, or, at the very most, 300 leagues. Nevertheless, at its estuary, it has the appearance of a boundless lake, and for a great extent its fresh waters cover the ocean. "Its green-coloured stream, and its waves dashing over the rocks in milk white foam, are strongly contrasted with the deep blue of the sea, which is separated from them by a strongly marked line."^k

The current formed by the *Oronoko*, between the continent of South America and the island of *Trinidad*, is so very strong, that vessels, even when favoured by a fresh breeze from the west, can scarcely overcome it. This solitary and dreadful place is called the *Melancholy Gulf*;^l the entrance to which is formed by the *Dragon's Mouth*.^m There, in the midst of furious waves, enormous rocks raise their isolated heads, the remains, says *Humboldt*, of that ancient dyke which formerly joined the island of *Trinidad* to the coast of *Paria*. It was at the aspect of these places that *Columbus* was convinced, for the first time, of the existence of the continent of America. "So prodigious a body of fresh water," thus reasoned that excellent observer of nature, "could not possibly have been accumulated, except by a river of very lengthened

^a Qu. Rio dos Salmoens, Salmon River.—P.

^b Travels of Father Girbal, in the Mercurio Peruano.

^c In Pinkerton's maps, the *Madeira* is formed by the Mamori and the *Itonas*. The *Magdalena* and *Guapore* are different branches of the *Itenas*.—P.

^d *La Condamine*, Relation, &c. p. 173.

^e *Dobrizhofer*, de *Abiponibus*, 206.

^f It is navigable for sloops, without interruption, from lat. 16° 8'. *Brackenridge's Voyage to South America*, II. 5.

^g "Orénoco," *Orinoco*, *Oroonoko*, *Oronoke*.

^h See the Map of Louisiana, by W. Darby, Philadelphia, 1816.

ⁱ *Guaviari*, or *Guyavero*.

^k *M. de Humboldt*, *Tableaux de la Nature*, II. p. 175.

^l *Golfo Triste*.

^m *Boca del Dragon*. There are four openings called the *Dragon's Mouths*, formed by small islands.—P.

course. The land, therefore, which affords this water must be a continent, and not an island ;” but, unacquainted with the general resemblance that exists between all the productions of the proper climate of the palm tree, Columbus imagined that the new continent was a continuation of the eastern coast of Asia. The refreshing mildness of the evening air, the ethereal clearness of the sky, the balsamic fragrance of the flowers wafted to him by the land breeze, all combined to make him suppose that he could not be far distant from the garden of Eden, the sacred residence of our first parents. The Oronoko appeared to him to be one of the four rivers which, according to the sacred writings, issued from the terrestrial paradise to water and divide the earth.

There are several cataracts in the Oronoko, amongst which Humboldt has distinguished those of *Maypura* and *Atures*. Neither of them is of any great elevation, and both owe their existence to an archipelago of little islands and rocks. These rapids or *raudals*, as the Spaniards call them, present an extremely picturesque appearance. “When the traveller descends from the village of *Maypura* to the brink of the river, after clearing the rock of *Manimi*, he enjoys a truly astonishing prospect. At once a sheet of foam stretches out before him to fully a mile in extent. Masses of rock, of an iron black colour, rear their rugged fronts, like towers, from the midst of the torrent. Every island, every rock, is ornamented with luxuriant trees, closely grouped together. A thick smoke constantly hangs suspended over the water ; and through this foggy vapour, which rises from the foam, shoot up the tops of lofty palm trees. As soon as the burning rays of the setting sun are refracted in this humid cloud, the optical phenomena which are produced, actually give an air of enchantment to the scene. The coloured arches successively appear and disappear, and their image incessantly hovers before the eye at the mercy of the wind. During the long season of the rains, the murmuring waters have accumulated little islands of vegetable earth round the naked rocks. Adorned with the *Drosera*, the *Mimosa*, with its foliage of silver white, and a multitude of other plants, they form beds of flowers in the midst of frowning rocks.”

The communications which exist between the Oronoko and the Amazon constitute one of the most astonishing phenomena of physical geography. The Portuguese made this fact known to the world above fifty years ago ; but the systematic geographers leagued together to prove that such conjunctions of rivers were impossible. In the present day we no longer stand in need of either analogies or critical reasoning. Humboldt has navigated these rivers, and has examined this singular arrangement of the surface. It is now certain that the Oronoko and the Rio Negro flow along a plateau, which, at this part, has no decided declivity ; a valley then occurs ; their waters flow into it, and are united, and thus form the celebrated *Casiquiari*, by means of which MM. Humboldt and Bonpland passed from the Rio Negro into the Oronoko. It is believed that there are still other communications between the Rio Negro and the different tributary streams of the Amazon. The lake of *Parima*, if it have only a temporary existence,

may very possibly empty itself both by the Oronoko and by the White River or *Parima*, which flows into the Amazon.

Although in other respects so well watered, South America contains several rivers and streams which have no outlet. Such is *Lake Titicaca*, which, it is true, discharges itself into what is called the lake *das Aullagas* ; but neither the one nor the other of these lakes empties itself into the sea. In *Tucuman*, and to the south-west of *Buenos Ayres*, there is an immense plain, completely horizontal, which is furrowed by currents of water, and chains of little lakes, that gradually lose themselves in the sands or in lagoons.

Such are the grand details of the hydrography of South America. Let us now proceed to the description of the Andes, a chain of mountains, the whole of which is comprised in the Spanish portion of this vast continent.

The Andes, which derive their name from the Peruvian word *anti*, signifying copper, and originally applied to a chain in the vicinity of *Cuzco*, form a long rampart, as it were, extending from north to south, and crowned by other chains of mountains, which sometimes run along the same line as the great chain, at others, are placed in a transverse or oblique direction, inclosing valleys or extending into plateaus.

This high land follows the coast of the Pacific Ocean through the whole extent of *Chili* and *Peru*, and is very seldom more than ten or twelve leagues from the sea. Narrow towards its southern extremity, it all at once becomes broader to the north of *Chili*. Near *Potosi* and lake *Titicaca* it attains its greatest breadth, which is sixty leagues. Near *Quito*, under the equator, we meet with the loftiest summits of this chain, which, in fact, constitute the most elevated mountains that have yet been measured on the terrestrial globe.* At *Popayan* this great dyke or high land terminates and divides into several chains. Two of these are the most remarkable ; one of them is extremely low, and runs towards the isthmus, of which it forms the spine ; the other approaches the Caribbean sea, follows its coasts, and even appears, by a little submarine chain, to be continued as far as the island of *Trinidad*.

Let us now consider the different parts of this vast system. From the impossibility of giving a complete methodical description, we shall travel with MM. Humboldt, *La Condamine*, *Bouguer*, and *Helm*.

The chain which borders the northern coast of *Terra Firma*, is, generally speaking, from 3600 to 4800 feet^b above the sea, and the plains which extend at its base, from 600 to 1560 feet ;^c but there are isolated summits that shoot up to a very great height. The *Sierra Nevada de Merida* has an elevation of 14,100 feet,^d and the *Silla de Caracas*, 13,896 feet.^e These peaks are covered with perpetual snow ; boiling matter often issues from them in torrents, and earthquakes are not uncommon. The chain is more abrupt to the north than to the south. In the *Silla de Caracas*, there is a frightful precipice of more than 7800 feet^f in height. As in the lower branches of the Andes, the rocks of this chain are composed of *gneiss* and *micaceous schistus*. These substances are sometimes found in beds of two or three feet in thickness, and con-

* The Himalaya mountains contain higher summits, if we may believe the measurements of the English in India.—P.

^b “600 to 800 toises.”

^c “100 to 260 toises.”

^d “2350 toises.”

^e “2316 toises.”

^f “1300 toises.”

tain large crystals of felspar. The mica slate often incloses red garnets and cyanite, (*disthene*.) In the gneiss of the mountain of Avila, green garnets are found. Nodules of granite also occur. To the south, the chain is accompanied by calcareous mountains, which sometimes attain a higher elevation than the primitive mountains, and contain some rocks of veined serpentine, and bluish steatite. To this system of mountains we may apply the name of *the chain of Caraccas*.

The granitic chain that traverses the isthmus of Panama, but which scarcely merits the name, is only from 300 to 900 feet^a in height, and even appears to be completely interrupted between the sources of the Rio Atrato, and the Rio San Juan.^b

In the kingdom of New Granada, from 2° 30', to 5° 15' north latitude, the Cordillera of the Andes is divided into three parallel chains, of which only the two lateral ones, at very great elevations, are covered with sand-stone, and other secondary formations. The *eastern chain* separates the valley of the river *Magdalena* from the plains of the Rio Meta. Its highest summits are the *Paramo de la Suma Paz*, that of *Chingaza*, and the *Cerros of San Fernando*, and *Tuquillo*. None of them rise to the region of perpetual snow. Their mean height is 12,000 feet^c; consequently, they are 1680 feet^d higher than the most elevated mountain of the Pyrenees. The *central chain* divides the waters between the basin of the river *Magdalena* and that of the Rio Cauca. It often reaches the limit of perpetual snow, and passes far beyond it in the colossal peaks of *Guanacas*, *Buragan*, and *Quindiu*, which are all of them elevated from 15,000 to 16,800 feet^e above the level of the ocean. At the rising and setting of the sun, this central chain presents a magnificent spectacle to the inhabitants of Santa Fé, and brings to the recollection of the traveller, only with more imposing dimensions, the view of the Alps of Switzerland. The *western chain* of the Andes separates the valley of Cauca from the province of Choco and the coasts of the South Sea. It is scarcely 4500 feet^f in height.^g

These three chains of mountains are again intermingled towards the north, under the parallel of Menzo, and Antioquia, in 6° and 7° north latitude. They also form a single group, or one continuous mass, to the south of Popayan, in the province of Pastos. We must carefully distinguish these ramifications from the division of the Cordilleras observed by Bouguer and La Condamine in the kingdom of Quito, from the equator to latitude 2° south. That division is formed only by plateaus, which separate mountains that are placed upon the very ridge of the Andes themselves. The lowest level of these plateaus is still 8400 feet^h above the sea. The three chains of which we have been speaking, are, on the contrary, separated by deep and extensive valleys, which are the basins of great rivers—the bottom of which is even less elevated above the level of the sea than that of the Rhone in the valley of Sion.

The passes by which these chains are crossed merit our attention. MM. Bouguer and Humboldt have described

them. The city of Santa Fé de Bogota, the capital of the kingdom of New Granada, is situated to the west of the *Paramo de Chingaza*, upon a plateau of 8142 feetⁱ of absolute height, extended along the ridge of the *eastern Cordillera*. In travelling from this town to Popayan, and the banks of the Cauca, it is necessary to descend the *eastern chain*, to pass the valley of the *Magdalena*, and then to cross the *central chain*. The most frequented pass is that of *Paramo de Guanacas*, described by Bouguer, during his return from Quito to Carthagen. Humboldt preferred the pass of the mountain of *Quindiu*, or *Quindio*, between the towns of Ibagua and Carthago—by far the most fatiguing in the whole Cordillera of the Andes. He was, first of all, obliged to cross a dense forest, which, during the most favourable season, occupies a space of ten or twelve days. During the whole of this journey, not a single cabin is met with, nor any means of subsistence. The pathway by which he crossed the Cordillera is frequently no more than one or two feet in breadth, and resembles, through the chief part of its extent, a hollow gallery, open to the sky. In this part of the Andes, as almost every where else, the rock is covered with a thick incrustation of clay; this is hollowed into ravines by the streamlets of water which descend from the mountain. The traveller shudders in marching along these tremendous fissures, which are filled with mud, while, at the same time, their obscurity is increased by the thick vegetation which, hanging down from above, covers the opening.

The *Quebradas* are formed upon a still grander scale. They are immense rents, which, dividing the mass of the Andes, break the continuity of the chain which they traverse. Mountains, as large as the *Puy de Dome*, would be completely swallowed up in the vast depth of these ravines, which isolate the different regions of the Andes, like so many peninsulas in the bosom of an aerial ocean. It is in the *Quebradas* that the eye of the terrified traveller can best comprehend the gigantic magnificence of the Cordillera. Through these natural gates the great rivers find a passage to the sea.

When we advance from Popayan towards the south, we perceive on the arid table-land of the province of Pastos, the three chains of the Andes intermingled in one group, which extends far beyond the equator. In the kingdom of Quito, this group presents a peculiar appearance from the river Chota, which winds its serpentine course amid mountains of basaltic rock, to the *Paramo de l'Ossuay*, where we still observe the memorable remains of Peruvian architecture. The most elevated summits are ranged in two files, which, in some measure, form a double crest to the Cordillera. These colossal peaks, covered with eternal snow, served as signals, in the operations of the French academicians, during their measurement of the equatorial degree. Their symmetrical arrangement in two lines, running from north to south, led Bouguer to consider them as two chains of mountains, separated by a longitudinal valley. But what this celebrated astronomer terms the bottom of a valley, is, in reality, the very ridge of the Andes; a plateau, in fact, of which the absolute

^a "50 to 150 toises."

^b Wafer's voyage and description of isthmus of America, mentions many very high mountains, the highest of which he spent four days in ascending; he was affected with giddiness on its summit. p. 27.

^c "2000 toises."

^d "280 toises"

^e "2500 to 2800 toises."

^f "750 toises."

^g M. de Humboldt, *Vues et Monumens*.

^h "1400 toises."

ⁱ "1357 toises."

height is from 2925, to 3142 yards.^a A double crest ought not to be confounded with an actual ramification of the Cordilleras. It is on these plateaus that the population of this wonderful country is concentrated; and there, too, are situated towns that contain from 30 to 50,000 inhabitants. "After living for some months on this elevated plateau," says Humboldt, "where the barometer stands at 21.33 inches English, the traveller irresistibly experiences an extraordinary illusion. He gradually forgets that every surrounding object, those villages that proclaim the industry of a nation of mountaineers; those pastures, covered at the same time with lamas, and with the sheep of Europe; those orchards, bordered with quickset hedges of the Duranta, and the Barnadesia; those luxuriant and highly cultivated corn fields—occupy a station suspended, as it were, in the high regions of the atmosphere; and he can scarcely bring himself to believe that this habitable region is even still farther elevated above the neighbouring shores of the Pacific Ocean, than the Pyrenean summit of *Canigou* is above the basin of the Mediterranean."

By looking upon the ridge of the Cordilleras as a vast plain, bounded by curtains of distant mountains, we become accustomed to consider the inequalities of their crest as so many separate summits. *Pichincha*, *Cayambe*, *Cotopaxi*, all those volcanic peaks, which are designated by particular names, although, for more than one half of their total height, they constitute only one single mass, appear to the inhabitants of Quito as if they were so many distinct mountains, rising from the midst of a plain destitute of woods. The deception becomes more complete, in consequence of the indentations in this double crest of the Cordilleras descending to the level of the higher inhabited plains. Accordingly, the Andes present the appearance of a chain only when viewed at a distance, either from the shores of the great ocean, or from the savannas that extend to the base of their eastern declivity.

The Andes of Quito compose the most elevated portion of the whole system, particularly between the equator and 1° 45' of south latitude. It is only on this limited space of the globe that mountains of above 19,000 feet^b in height, have been measured with exactness; and even in this respect, there are only three peaks to which this remark can be applied; namely, Chimborazo, which would exceed the height of Mount Etna, placed on the summit of *Canigou*, or that of St. Gothard piled on the top of the Peak of Teneriffe; the other two are *Cayambe* and *Antisana*. From the traditions of the Indians of Lican, we learn, with some degree of certainty, that the Altar Mountain, called by the natives *Capa-Urcu*, had once a greater elevation than Chimborazo, but that, after a continual eruption of eight years, this volcano sunk to a lower altitude. In proof of this fact, the top of the mountain presents in its inclined peaks, nothing but the traces of destruction.

The geological structure of this part of the Andes does not essentially differ from that of the great mountain chains of Europe. Granite constitutes the base, upon which the less ancient formations repose. It comes into view at the foot of the Andes, on the shores of the Pacific Ocean, as well as on those of the Atlantic, near the mouths of the *Oronoko*. Sometimes in masses, at others

in strata (*bancs*.) regularly inclined and parallel; and containing round masses, in which mica alone prevails; the granite of Peru resembles that of the higher Alps and of Madagascar. Upon this rock, and occasionally alternating with it, is found *gneiss* or schistose granite, which passes into mica slate, and this again into primitive clay slate. Granular limestone, primitive trap, and chlorite slate, form subordinate beds in the *gneiss* and mica slate; while this latter, which is extensively diffused through the Andes, often encloses beds of graphite, and serves as a base to formations of serpentine, which sometimes alternate with sienite. The crest of the Andes is every where covered with porphyries, basalts, clink stone, and green stone. These rocks, divided into columns, present, at a distance, the appearance of an immense assemblage of dilapidated towers. The thickness and extent of the schistose and porphyritic rocks is the only great phenomenon by which the Andes differ from the mountains of Europe. The porphyries of Chimborazo are 11,400 feet^c in thickness, without a mixture of any other rock; the pure quartz, to the west of Caxamarca, is 9000,^d and the sandstone of the environs of Cuenca 4800.^e These rocks form the whole of the central elevation of the Andes, while, in Europe, granite or primitive limestone constitutes the summit of the chains. Volcanoes have penetrated these immense beds, and have covered their sides with obsidian and porous amygdaloid. The lowest volcanoes sometimes throw out lava; but those of the Cordillera, properly so called, only eject water or scorified rocks, and more frequently clay, intermixed with sulphur and carbon.^f

As we penetrate into Peru, we see the chains of the Andes become more numerous, and increase in breadth, but, at the same time, diminish in elevation.

Chimborazo, like Mont Blanc, forms the extremity of a colossal group. From Chimborazo, as far as 120 leagues to the south, no mountain peak attains the limit of perpetual snow. The crest of the Andes has there only from 3360 to 3800 yards^g of elevation. Beyond the eighth degree of south latitude, or the province of Guamachuco, the snowy peaks become more numerous, especially near Cuzco and La Paz, where the peaks of *Himani* and *Cururana* shoot up their summits to the clouds. Every where in this region, the Andes, properly so called, are bordered to the east by several inferior chains. The missionaries who have traversed the mountains of Chachapoya, those that skirt the *Pampa del Sacramento*, those that form the *Sierra de San Carlos*, or the *Grand Pajonal*, and the *Andes de Cuzco*, represent them as being covered with large trees and luxuriant meadows, and consequently, as being considerably lower than the true Cordillera. With regard to the latter, M. Helm, director of the mines of Spain, has afforded us some knowledge of the central portion, where the division into two parallel ridges, which Bouguer had observed farther to the north, is very manifestly visible. According to this writer, the eastern side of the Andes sometimes presents both red and green granite, and *gneiss*, amongst other places, near Cordova and Tucuman; but the great chain principally consists of argillaceous schistus, or of different varieties of thick roof slate, of a bluish, dark red, gray, or yellowish colour. From time to time

^a "2700 to 2900 mètres."

^b "3000 toises."

^c "1900 toises."

^d "1500 toises."

^e "800 toises."

^f A. de Humboldt, *Tableau des régions équatoriales*, p. 122—130.

^g "3100 to 3500 mètres, or 1600 to 1800 toises."

beds of limestone and large masses of ferruginous sandstone are met with. A beautiful mass of porphyry crowns the mountain of Potosi. From that city to Lima, the argillaceous schistus seemed to this observer to predominate; the granite sometimes appeared in long beds or in round masses; the base of clay slate was often covered with beds of marl, gypsum, limestone, sand, fragments of porphyry, and even rock salt.

The accidental observations of M. Helm do not furnish us with a complete geological view; but yet they coincide with the above description of the Andes of Quito, which we have taken from Humboldt.

The Andes of Chili do not seem to yield in height to those of Peru; but their nature is less perfectly known. Volcanoes appear to be there more numerous. The lateral chains disappear, and the Cordillera itself presents only a single ridge. More to the south, in New Chili, latitude 44° S. the Cordillera approaches so close to the ocean that the precipitous islets of the archipelago of Huayatecas may be regarded as a fragment detached from the chain of the Andes. They are so many Chimborazos and Coto-paxis, but plunged two-thirds of their height into the abyss of the ocean. On the continent, the snowy cone of Cupatana is elevated nearly 3142 yards;^a but more to the south, near Cape Pillar, the granitic mountains sink to about 433 yards,^b and even still lower.

According to the accounts of navigators, there is reason to consider the principal part of the southern extremity of the Andes, at the Straits of Magellan, as composed of masses of basalt, which rise in the form of columns.

The metallic riches of the chain of the Andes appear to surpass those of the Mexican Cordillera; but placed at a greater elevation in the snowy region, and far from forests and cultivated land, the mines, hitherto discovered, have not been equally productive. At the same time, this remark, important as it is in a political point of view, is anything but conclusive with regard to physical geography. For even supposing that mines are not discovered in the Andes at a lower level, still, nevertheless, they may exist, and be concealed from the view, and from all approach, merely by some formations of rocks placed upon the metalliferous schistus in a greater mass than in Mexico.

The Andes, by no means abounding in calcareous rocks, contain very few petrifications. The belemnites and ammonites, so common in Europe, seem to be unknown. In the chain of Caraccas, Humboldt found a great quantity of petrified shells, which resembled those of the neighbouring sea. In the plain of the Oronoko, trees are found petrified, and converted into a very hard breccia.

Petrified shells are also found at Micuipampa, and at Huancavelica, at an elevation of 12,000 and 13,200 feet.^c Other remains of a former world are discovered at an inferior level. There has been found near Santa Fé, in the Campo de Gigante, at an elevation of 8,220 feet,^d an immense quantity of the fossil bones of elephants, both of the African kind, and of the carnivorous species,^e discovered near the Ohio. Some have also been found to the

south of Quito, and in Chili; so that we can now prove the existence and the destruction of these gigantic elephants from the Ohio to Patagonia.

The temperature, determined as much by the level as by the latitude, here presents contrasts similar to those which we have observed in Mexico. The inferior limit of perpetual snow under the equator, is at the height of 14,760 feet;^f this boundary, invariable and strongly defined, must strike the most careless observer. The other divisions of climate are more intermingled; notwithstanding which, they may be defined with greater precision than they have hitherto been.

The three zones of temperature which originate in America from the enormous difference of level between the various regions, cannot by any means be compared with the zones which result from a difference of latitude. The agreeable and salutary vicissitudes of the seasons, are wanting in those regions that are here distinguished by the denominations of *cold* or *frigid*, *temperate*, and *hot* or *torrid*. In the frigid zone it is not the intensity but the continuance of the cold, the absence of all vivid heat, and the constant humidity of a foggy atmosphere, that arrest the growth of the larger vegetables, and, in man, perpetuate those diseases that arise from checked perspiration. The hot zone does not experience excessive heat; but it is the perpetual continuance of the heat, together with the exhalations from a marshy soil, and the miasmata of an immense mass of vegetable putrefaction, added to the effects of an extreme humidity, that produces fevers of a more or less destructive nature, and spreads through the whole animal and vegetable world the agitation of an exuberant but deranged vital principle. The temperate zone, by possessing only a moderate and constant warmth, like that of a hot-house, excludes from its limits both the animals and vegetables that delight in the extremes of heat and cold, and produces its own peculiar plants, which can neither grow above its limits, nor descend below them. Its temperature, which does not brace the constitution of its constant inhabitants, acts like spring on the diseases of the hot region, and like summer on those of the cold region. Accordingly, a mere journey from the summit of the Andes to the level of the sea, or vice versa, proves an important medical agent, which is sufficient to produce the most astonishing changes in the human body. But, living constantly in either the one or the other of these zones must enervate both the mind and the body by its monotonous tranquillity. Summer, spring, and winter, are here seated on three distinct thrones, which they never quit, and which are constantly surrounded by the attributes of their power.^g

Vegetation presents a greater number of gradations, of which it becomes necessary to point out the principal. From the shores of the sea to the height of 1083 yards,^h we meet with magnificent palms, the *Musa*, the *Heliconia*, the *Theophrasta*, the most odoriferous of the *liliaceæ*, the balsam of Tolu, and the cinchona of Carony. The large flowered jessamine, and the *Datura arborea*, exhale at night their delicious perfume round the city of Lima, and,

^a "About 2900 mètres, (1500 toises.)"

^b "400 mètres, (200 toises.)"

^c "2000 and 2200 toises."

^d "1370 toises."

^e The Mastodon, supposed by some to be carnivorous, from the pointed processes of its grinders.—P.

^f "2460 toises."—M.B. At 15,577 feet Eng.—Kirwan.—P.

^g Lefebvre, Treatise on the Yellow Fever, ch. I. (Fr.) A. de Humboldt, Tableau des régions équatoriales.

^h "1000 mètres, (513 toises.)"

placed in the hair of the ladies, acquire an additional charm by heightening the graces of female loveliness. On the arid shores of the ocean, under the shade of the cocoa nut tree, the mangrove springs, with the cactus, and various saline plants, and, amongst others, the *Sesuvium portulacastrum*.^a A single species of palm, the *Ceroxylon andicola*, has separated itself from the rest of its family, to inhabit the heights of the Cordillera, at from 5400 to 8700 feet^b of elevation.

Above the region of the palms commences that of the arborescent ferns,^c and of the *Cinchona*. The former cease to grow at 4800 feet,^d while the latter stops at 8700.^e The febrifuge substance, which renders the bark of the cinchona so precious, is met with in several trees of different species, some of which grow at a very low level, even on the sea shore; but as the true cinchona does not grow at a lower elevation than 2118 feet,^f it has not been able to pass the isthmus of Panama. In the temperate region of the cinchona grow some of the lily tribe, for example, the *Cipura* and the *Sisyrinchium*; the *Melastoma*, with large violet-coloured flowers; the *Passion-flower tree*, as lofty as our northern oaks; the *Thibaudia* the *Fuchsia*, and the *Alstromeria*, of singular beauty. It is there that majestically rise the *Macrocnemum*, the *Lisianthus*, and the various *Cucullarias*. The ground is covered, in moist places, with evergreen mosses, which sometimes form a turf of as great beauty as that of Scandinavia or England. The ravines conceal the *Gunnera*, the *Dorstenia*, the *Oxalis*, and a multitude of unknown *Arums*. At about 5232 feet^g of elevation, we meet with the *Porlieria*, which marks the hygrometrical state of the air; the *Citrosma*, with odoriferous leaves, and fruit; and numerous species of *Symplocos*. Beyond the height of 2392 yards^h the coldness of the air renders the *Mimosas* less sensitive, and their leaves no longer close on being touched. Beyond the height of 2668, and especially of 3078 yards,ⁱ the *Acena*, the *Dichondra*, the *Hydrocotyle*, the *Nerteria*, and the *Alchemilla*, form a very thick and verdant turf. The *Mutisia* there climbs the loftiest trees. The oaks do not commence in the equatorial regions at a lower elevation than 1842 yards.^k These trees alone sometimes present, under the equator, the appearance of spring; for they lose all their leaves, and others sprout forth, the young verdure of which is mingled with that of the *Epidendrum*, which grows on their branches. In the region of the equator, the great trees, those of which the trunk measures more than ten or fifteen fathoms, (*toises*), do not rise beyond the level of 2925 yards.^l Above the level of the city of Quito, the trees are smaller, and their height is not to be compared with that which the same species attain in the more temperate climates. At 3600 yards^m almost the whole vegetation of trees entirely disappears; but at this eleva-

tion the shrubs become so much the more common. This is the region of the *Berberis*, the *Duranta*, and the *Barnadesia*. These plants characterise the vegetation of the plateaus of Pasto and Quito, as that of Santa Fé is distinguished by the *Polymnia* and the *Datura arborea*. The soil is there covered with a multitude of *Calceolarias*, the golden coloured corolla of which enamels the verdure of the turf in a beautiful manner. Higher up, on the summit of the Cordillera, from an elevation of 8640 to that of 10,200 feet,ⁿ we find the region of the *Wintera* and the *Escallonia*. The cold but always humid climate of these heights, called by the natives *Paxamos*, produces shrubs, of which the trunks, short and stunted,^o divide into an infinite number of branches, covered with coriaceous leaves of a shining verdure. Some trees of the orange-coloured cinchona,^p the *Embothrium*, and the *Melastoma*, with violet and almost purple-coloured flowers, grow at this elevation. The *Alstonia*, the leaf of which, when dry, yields a salutary tea, the *Granadian Wintera*,^q and the *Escallonia tubar*, which extends its branches in the shape of a parasol, form there scattered groups.

A broad zone, of from 6000 to 12,600 feet,^r presents us with the region of alpine plants, that, namely, of the *Stæhelinea*, the *Gentians*, and the *Espeletia frailecon*,^s the hairy leaves of which often serve as a shelter to the unfortunate Indians who have been benighted in these regions. The turf is adorned with the *Dwarf lobelia*,^t the *Sida* of Pichincha,^u the ranunculus of Gusman,^v and the gentian of Quito, besides many other new species. At the height of 12,600 feet,^w the alpine plants are succeeded by the grasses, the region of which extends 1800 or 2400 feet^x higher. The *Jarava*, the *Stipa*, and many other new species of *Panicum*, *Agrostis*, *Avena*, and *Dactylis*, cover the ground. At a distance it has the appearance of a gilded carpet, and, by the inhabitants of the country, is called *Pajonal*. Snow occasionally falls in this region of the grasses. At the height of 14,160 feet,^y the phænogamous plants entirely disappear. From this boundary to that of perpetual snow only the lichens cover the rocks. Some of these plants appear to grow even under the eternal ice.

The cultivated plants are met with in zones that are neither so narrow nor so rigorously defined. In the region of the palms, the natives cultivate the banana, jatropha, maize, and cacao. Europeans have introduced the sugarcane, and indigo plant. After passing the level of 3100 feet,^z all these plants become rare, and only prosper in particular situations. It is thus that the sugarcane grows even at the height of 7500 feet.^{aa} Coffee and cotton extend across both of these regions. The cultivation of European corn commences at 3000 feet,^{ab} but its growth is uncertain lower than 1500 feet^{ac} above this line. Wheat

^a A. de Humboldt, Tableau des régions équatoriales.

^b "900 to 1450 toises."

^c *Polypodium arboreum, spinosum and horridum* of Linnæus. See Spec. Plant. II. p. 1551.

^d "800 toises."

^e "1450 toises."

^f "353 toises."

^g "872 toises."

^h "2200 mètres, (1125 toises.)"

ⁱ "1334 and 1539 toises."

^k "1700 mètres, (872 toises.)"

^l "2700 mètres, (1385 toises.)"

^m "3500 mètres, (1796 toises.)"

ⁿ "1440 to 1700 toises."

^o "Court et carbonisé," short and carbonized, [blackened.]

^p *Cinchona Lanceifolia*.

^q *Drymis Granatensis*—Humboldt.

^r "1030 to 2100 toises."

^s *E. grandiflora*—Humboldt; called *fraylejón*, in Eogota.

^t *Lobelia nana*.

^u *Sida Pichinchensis*.

^v *R. Gusmanni*.

^w "2100 toises."

^x "300 or 400 toises."

^y "4600 mètres, (2360 toises.)"

^z "1000 mètres, (500 toises.)"

^{aa} "1250 toises."

^{ab} "500 toises."

^{ac} "250 toises."

is the most vigorous, from a height of 4500 to 6000 feet.^a One year with another it produces twenty-five or thirty grains for one. Above 5400 feet^b the fruit of the banana does not easily ripen; but the plant is still met with, although in a feeble condition, 2400 feet^c higher. The region comprehended between 4920 and 5760 feet^d is also the one which principally abounds with the *cocca*, or *Erythroxyllum Peruvianum*, a few leaves of which, mixed with quicklime, support the Peruvian Indian in his longest journeys through the Cordillera. It is at the elevation of from 6000 to 9000 feet^e that the *Chenopodium quinou*, and the various grains of Europe, are principally cultivated, a circumstance which is greatly favoured by the extensive plateaus that exist in the Cordillera of the Andes, the soil of which being level, and requiring little labour, resembles the bottom of ancient lakes. At the height of 9600 or 10,200 feet,^f frost and hail often destroy the crops of corn. Maize is scarcely any longer cultivated above the elevation of 7200 feet;^g 1800 feet^h higher, and the potato is produced; but it ceases at 12,600 feet.ⁱ At about 10,200 feet,^k wheat no longer grows, and barley only is sown, although even this grain suffers from the want of heat. Above 11,040 feet,^l all agriculture and gardening cease; and man dwells in the midst of numerous flocks of lamas, sheep, and oxen, which, wandering from each other, are sometimes lost in the region of perpetual snow.

To complete this physical description of South America, we shall now proceed to consider the various animals that live at different heights in the Cordillera of the Andes, or at the foot of those mountains. From the level of the sea to 3078 feet,^m in the region of the palms and the scitamineæ, we meet with the sloth, which lives on the *Cecropia peltata*; the boa, and the crocodile, who sleep or drag along their frightful mass at the foot of the *Conocarpus* and the *Anacardium caracoli*.ⁿ It is there that the *Cavia capybara* hides himself in the marshes that are covered with the *Heliconia* and the *Bambusa*, to withdraw himself from the pursuit of the carnivorous animals. The *Tanagra*, the *Crax*, and the *Parrots*, perched on the *Caryocar* and the *Lecythis*, mingle the brilliance of their plumage with that of the flowers and leaves. It is there that we see the glittering of the *Elater noctilucus*, which feeds on the sugar-cane; and there, too, the *Curculio palmarum* lives in the heart of the cocoa-nut tree. The forests of these burning regions resound with the howlings of the alouattes^o and other sapajous. The *jaguar*, the *Felis concolor*,^p and the black tiger of the Oronoko, still more sanguinary than the jaguar, there relentlessly chase the little stag, (*Cervus Mexicanus*),^q the *Cavias*, and the ant-eaters, whose tongue is fixed to the end of their sternum. The air of these lower regions, especially in the woods and on the banks of the rivers, swarms with those countless myriads of the *mosquito*,

a fly which renders a large and beautiful portion of the globe almost uninhabitable. To the mosquito is added the *Cestrus humanus*, which deposits its eggs in the skin of the human body, and occasions painful swellings; the *Acari*, which furrow the skin; venomous spiders, and ants and termites, whose formidable industry destroys the labours and the books of the inhabitants. Still higher, from 3078 to 6156 feet,^r in the region of the arborescent ferns, we seldom meet with the *jaguar*, never with the boa, alligator, or lamentin, and rarely with the monkeys; but the tapir, the *Sus tajassu*, and the *Felis pardalis*^s are there numerous. Man, the monkey, and the dog, are there accommodated by an infinite multitude of the *Pulex penetrans*, which is less abundant on the plains. From 6156 to 9234 feet,^t in the higher region of the cinchona, we no longer meet with the monkey or the Mexican stag; but we now find the tiger cat, the bear, and the great stag of the Andes. Lice abound in the Andes at this height, which is that of the Peak of Canigou. From 9234 to 12,300 feet,^u is found the small species of lion, which, in the Quichua language, is known by the name of the *puma*; the lesser bear, with a white forehead; and some of the weasel tribe. Humboldt has often seen with astonishment the *calibri* or humming bird at the height of the Peak of Tenerife. The region of the grasses, from 12,300 to 15,400 feet^v of elevation, is inhabited by flocks of the *vicuna*, *guanaco*, and *alpaco*, in Peru, and the *chili-hueque* in Chili.^w These quadrupeds, which here represent the genus *Camelus* of the old continent, have not extended themselves either to Brazil or Mexico, because, during their journey, they must necessarily have descended into regions that were too hot for them to exist in. The *lama* is only met with in the domestic state; because those that are found on the western declivity of Chimborazo, became wild at the period of the destruction of Lican by the Inca Tupayurangi. The vicuna prefers those places in particular where snow occasionally falls. Notwithstanding the persecution which it has experienced, flocks of 300 or 400 in number are still to be seen, especially in the provinces of Pasco, at the sources of the river Amazon, and in those of Guailas and Caxatambo, near Gorgor. This animal likewise abounds near Huancavelica, in the environs of Cuzco, and in the province of Cochabamba, near the valley of the *Rio Ccattages*. They are found there wherever the summit of the Andes rises higher than the summit of Mont Blanc. The inferior limit of perpetual snow is the higher boundary, as it were, of organised beings; some of the lichens even grow under the snow itself; but the condor, (*Vultur gryphus*) is the only animal which inhabits these vast solitudes. Humboldt has seen them sailing through the air at the immense height of 21,100 feet.^x Some sphinxes and flies were observed at the height of 19,180 feet,^y and

^a "800 to 1000 toises."

^b "100 toises."

^c "400 toises."

^d "820 and 960 toises."

^e "1030 to 1500 toises."

^f "1600 or 1700 toises."

^g "1200 toises."

^h "300 toises."

ⁱ "2100 toises."

^k "1700 toises."

^l "1840 toises."

^m "1000 mètres, (513 toises)."

ⁿ *Rhinocarpus excelsus*—Humboldt.

^o *Simia seniculus* et *beelzebul*, howling monkeys, or preachers.—P.

^p Cougar.

^q *Chevreuil d'Amérique*—Euffon; *Mexican Roe*—Ed. Encyc.—P.

^r "1000 to 2000 mètres, (513 to 1026 toises)."

^s Ocelot.

^t "2000 to 3000 mètres, (1026 to 1539 toises)."

^u "3000 to 4000 mètres, (1539 to 2052 toises)."

^v "4000 to 5000 mètres, (2052 to 2565 toises)."

^w These are different species or varieties of the S. American camel. Gmelin gives five different species, viz.: *Camelus llama*, or the lama; *C. huancus*, or the guanaco; *C. arcuanus*, or the Chili-hueque; *C. vicugna*, or the vicuna; and *C. paco*, or the alpaco. Cuvier, who classes them in a separate genus, *Lama*, reduces them to two species, viz.: *L. pernichatta*, in its domestic state called *lama*, in its wild state, *guanaco*; and *L. vicugna*, in its domestic state called *paco*, in its wild state, *vicuna*.—P.

^x "At above 6500 mètres, (3335 toises)."

^y "5900 mètres, (3027 toises)."

appeared to him to have been involuntarily carried into these regions by ascending currents of air.^a

To this distribution of the animal kingdom, according to the elevation of the country, might be joined a sketch of the purely geographical limits which certain animals never pass. It is a remarkable phenomenon that the *alpaco*, *vicuna*, and *guanaco*, follow the whole chain of the Andes, from Chili to the 9° of south latitude, and that none should afterwards be observed north of this point, either in the

kingdom of Quito, or in the Andes of New Granada. The writers of the country attribute this fact to the herb *ichos*, which these animals prefer to every other kind of food, but which they do not meet with beyond the above limits. The ostrich of Buenos Ayres presents an analogous phenomenon. This great bird is not found on the vast plains of the Parexis, where, nevertheless, the vegetation appears to resemble that of the Pampas. Perhaps, however, the saline plants may not exist there. Other differences will be afterwards indicated, in the particular descriptions.

^a A. de Humboldt, Tableau des régions équatoriales.

BOOK LXXXVII.

THE DESCRIPTION OF AMERICA CONTINUED.

Particular Description of Caraccas, New Granada, and Quito.

THE first Spaniards who visited the coast extending from the Oronoko to the isthmus, were in the habit of designating it under the general name of *Terra Firma*.^a Their king, Ferdinand, gave to the western part the appellation of *Castile d'Or*.^b This latter denomination, however, fell into disuse, and, in proportion as the rest of the continent was discovered, the former must have appeared improper. Notwithstanding this circumstance, it still continues to be employed, but it is confined to a small government, comprehending the provinces of Veragua, Panama, and Darien; a government which seems by no means to correspond completely with the extent of *Castile d'Or*.^c A perseverance in error has led geographical writers still to retain *Terra Firma* within the boundary of its original extent, and to comprehend in this imaginary division the captain-generalship of *Caraccas*, or *Venezuela*, of which Spanish Guiana forms a part, and the new kingdom of Granada, which at present includes the kingdom of *Quito*.

Cape *De la Vela*, and the chain of mountains which runs from this promontory to join the Andes, mark the limits between New Granada and Caraccas. This latter general government contains the province of *Venezuela*, or *Caraccas*; that of *Maracaibo*, comprehending the districts of Merida and Truxilla; those of *Varinas*, and *Spanish Guiana*, and that of *Cumana*, or *New Andalusia*, containing the district of Barcelona. The island of *Sta. Margarita* is a small military government depending on *Cumana*. The first conquerors of this country having observed Indian villages, built on piles, in the islands of the lake of Maracaibo, gave to the whole country the name of *Venezuela*. Long the deplorable theatre of a horrible civil war, Caraccas has undergone so many political changes, that its topographical description, even derived from the most recent works, is accompanied with great uncertainty.^d

The chain of mountains running between the Caribbean sea, and the basin of the Oronoko, having little elevation, almost every where admits of being cultivated. According to the difference of level, they enjoy, in some places, the refreshing coolness of perpetual spring, while in others, the influence of latitude is completely felt.

^a Oviedo, *Historia de las Indias*, c. I. p. 9, 10, &c.; in Barcia, *Historia de los Indios*, t. I.

^b *Idem*. c. II. p. 22. Gomara, c. LXV. p. 58.

^c Alcedo, *Diccionario*, at the word *Terra Firma*.

^d Neither Caraccas, New Granada, Mexico, Chili, nor Buenos Ayres, have made the least attempt to extend or alter their boundaries.* The con-

* Chiapa, formerly a province of the captain-generalship of Guatuala, is now included in the republic of Mexico.—P.

Winter and summer, that is to say, the rainy and the dry season, completely divide the year. The former commences in November, and ends in April. During the six remaining months the rains are less frequent, sometimes even rare. Storms have been less frequent since the year 1792 than before that period, but earthquakes have committed dreadful ravages. Some gold mines have been discovered, but, in consequence of the revolt of the Indians, they have been abandoned. In the jurisdiction of St. Philip, they have discovered a copper mine, which supplies the wants of the country, and even affords metal of excellent quality for exportation. The pearl fishery along the coast, once of importance, is now abandoned. The northern coast of the province of Venezuela produces a great deal of fine white salt. Mineral and hot springs, although very abundant, are little frequented. The forests that cover the mountains of Caraccas, would, for ages to come, supply the most extensive dock yards, but the nature of the surface renders it too difficult an operation to remove the trees, of which, at present, navigation, possessing little activity, does not stand in need. The forests also produce a great variety of woods, admirably adapted for dyeing and cabinet-work. Medicinal drugs, such as sarsaparilla and cinchona, are also collected. The lake of Maracaibo furnishes mineral pitch, or pissasphaltes, which, mixed with tallow, is used for paying vessels. The bituminous vapours which float on the surface of the lake, frequently take fire spontaneously, especially during the great heats. The banks of this lake are so barren, and so unhealthy, that the Indians, instead of fixing their habitations there, prefer living on the lake itself. The Spaniards found many villages constructed there, without order, it is true, or uniformity, but built on solid piles. This lake, which is seventy leagues^e in length, and thirty broad, communicates with the sea, but its water is constantly fresh.^f Its navigation is easy, even for vessels of a large size. The tide is more strongly felt in it than on the adjacent coasts. The lake of Valencia, which was called by the Indians *Tucari-goa*, presents a far more attractive scene. Adorned with a luxuriant vegetation, its banks enjoy an agreeable temperature. Thirteen leagues and a half long, and four in breadth, it receives the water of about twenty rivers, and yet has no outlet itself, being separated from the sea by six leagues of country covered with rugged mountains. The

troverted limits of Texas and the Banda Oriental, originate in the bad faith of Old Spain, and the encroachments of Portugal, two old governments. The boundaries of the liberated provinces stand the same as before the revolution.—EDIT.

^e 50 leagues.—M.B.—*Ed. Encyc.*; 200 miles long and 70 broad.—Morse.—P.

^f It acquires a brackish taste when the wind blows strongly from the sea.—*Ed. Encyc.*—P.

provinces of Caraccas are very rich in rivers, which afford great facility for irrigation. Those that meander in the chain of mountains, empty themselves into the sea, and run from south to north, while those that take their rise on the southern slope of the mountains traverse the whole plain, and fall into the Oronoko. The former, in general, are sufficiently embanked by nature, and have such a declivity as to secure them from often overflowing; or, when these inundations do take place, prevent them from being either long or prejudicial. The latter, however, having shallower beds, and gliding through a more uniform surface of country, intermingle their waters during a great part of the year, at which time they rather resemble a sea, than rivers that have overflowed their banks. The tide, which is very little felt along the whole northern coast, from Cape De la Vela, to Cape Paria, becomes very strong from this latter cape to Dutch Guiana. A great inconvenience, common to all the ports of the provinces of Caraccas, arises from their being continually exposed to the conflict of the tides,^a and to boisterous waves,^b which do not appear to be at all occasioned by the wind, but which are not therefore the less inconvenient, nor the less dangerous.

The northern valleys are the most productive parts of these provinces, because it is there that the heat and moisture are more equally combined than elsewhere. The southern plains, too much exposed to the heat of the sun, produce pasture only, in which they rear cattle, mules, and horses. Cultivation ought to be very flourishing in these provinces, where there are no mines; but its progress is retarded from indolence and want of information. The cacao which they produce, is next to that of Sonocusco in the kingdom of Guatemala, the most esteemed in commerce; it is exported principally to Mexico. The plantations of cacao trees are all of them found to the north of the chain of mountains which coasts the sea. In the interior, indigo, which is of a very good quality, has only been cultivated since 1774. It was at the same epoch that they commenced the culture of cotton. In 1784, it was proposed to rear the coffee plant, for the purpose of trade; but, hitherto, these plantations have been negligently cultivated, and have consequently afforded very moderate crops. Sugar can only yet be classed in the second rank of productions; nevertheless, it is made in considerable quantity. It is, however, almost entirely consumed in the country; for the Spaniards are passionately fond of confectionary, and of every kind of food that admits of sugar. The tobacco is excellent, but the laws interfere with its cultivation. The commerce of Caraccas has undergone the same changes as that of the other Spanish colonies. The smuggling, which was carried on by the Dutch, who were settled in the island of Curacoa, induced the Spanish government to establish, in 1728, the company of Guipuscoa, which had the privilege of sending ships to Caraccas, and engaged to make vessels cruise along the coast, in order to prevent this contraband trade. After undergoing various modifications, this company was finally suppressed in 1778, and liberty was restored to commerce. The exportations of Caraccas are estimated at from 1,041,666*l.*,

^a "Ras de marées," race, tide-way; a current formed by the tides in the open sea, attended with short, broken waves, which cross each other in various directions.—P.

^b "Lames houeuses," long swelling waves, without breakers.—P.

^c "5 to 6 million piastres."

to 1,250,000*l.* sterling,^c including the contraband trade, which is encouraged by the great number of ports.^d

The capital of the government is *Caraccas*, the residence of the governor-general, the audience, intendency, consulate, and archbishop of Venezuela. Before the last earthquake, it contained 42,000 inhabitants. Built in a valley, on very uneven ground, and watered by four small rivers, it possessed, nevertheless, very regular streets, and handsome houses. The temperature of this town does not at all correspond with its latitude; the inhabitants enjoy almost one perpetual spring. It owes this advantage to its elevation, which amounts to 3000 feet^e above the level of the sea. *La Guayra*, at the distance of five leagues, is the port of Caraccas. The sea here is fully as boisterous as the air is hot and unhealthy. We must not omit to take notice of *Porto Cavello*, a town of some trade, situated on the sea-shore, in the midst of marshes, which render the air unhealthy. *Valencia* is a flourishing city, situated in the midst of a fertile and salubrious plain, half a league from the lake of the same name. *Coro*, the former capital, is built near the sea, in an arid and sandy plain. *Cumana*, a town of 28,000 inhabitants, and the capital of a separate government, is situated on a dry and sandy shore, where the air is healthy, although burning hot; but the inhabitants are deterred from raising any extensive edifices, in consequence of the frequency of earthquakes. *Neu Barcelona* is a dirty town, in the midst of an uncultivated country; but the soil of which is excellent. We must also notice *Maracaibo*, the seat of a government, built on a sandy soil, on the left bank of the lake of the same name, six leagues from the sea. The air is excessively hot; yet, a residence there is by no means unhealthy. Its inhabitants, in general, are good sailors and soldiers; those who do not pursue a seafaring life, employ themselves in rearing cattle, with which their country is covered. Their country houses are at *Gibraltar*, on the other side of the lake.^f At the upper end of this lake is situated *Merida*, a small town, the inhabitants of which are very active and industrious, and possess the best cultivated and most productive territory of the whole province. *Truxillo* was once a magnificent town, but was ravaged by the Buccaneers. *Varinas* is the chief place of a government, which, in 1787, was detached from that of Maracaibo. The best tobacco met with in commerce is cultivated here.

The island of *Margarita*, containing the town of *Assumption*, and the harbour of *Pampatar*, is dry, but healthy. Instead of pearls, however, from the fishery of which it originally derived its name, its waters now furnish an immense quantity of fish.

Before the late revolution, the population of the government of Caraccas was estimated at nearly a million of individuals, of which 200,000 were Spaniards, 450,000 free people of colour, 60,000 slaves, and 280,000 Indians. A very haughty nobility took its rise among the Spanish population; but this noblesse was itself divided into two parties, one of which boasted of a purer descent than the other. Almost all the Spaniards here are Creoles. The principal part of those Spaniards who quit their native country, impelled by the national passion for mining, pro-

^d Dauxion Lavaysse, Voyage de Vénézuëla, II. p. 461. Humboldt. Nouvelle Espagne, IV. p. 472. The Edinburgh Gazette gives this amount, exclusive of contraband.

^e "460 toises," 2760 French feet.

^f History of the Buccaneers, I. p. 278. (Fr.)

ceed to Mexico or Peru. They disdain the provinces of Caraccas, for to those who are only anxious to discover gold in the earth, this country has no attraction to offer, but the slow, periodical, and varied productions of a soil which demands both labour and patience. These Creoles esteem no country more highly than their own, and recognise with reluctance their original descent from old Spain. Strangers experience so many difficulties in entering the Spanish colonies, and, when established there, encounter so many disagreeable circumstances, that they are far from numerous. Nevertheless, the promontory of Paria has become the asylum of a small colony of French and Irish, who lead a patriarchal life, under the shade of their cacao trees.^a The people of colour ardently longed for independence; and they have wreaked the most frightful vengeance on the whites. The *Zambos*, or descendants of Indians and negroes, the most barbarous and immoral of all the people of colour, about half a century since, obtained the right of citizenship in the town of *Nirgua*,^b from which, by their incessant troublesomeness, they have successively driven away all the whites.

The armed force consisted of 6558 troops, comprising the artillery and militia. The total amount of taxes came to nearly 250,000 pounds sterling.^c This sum, however, was rarely sufficient to defray the expenses.

We have reserved for this place the description of that part of *Guiana*, which belongs to the Spaniards, and depends on Caraccas. This tract of country has an extent of more than 400 leagues in length, from the mouths of the Oronoko to the confines of Brazil. Its breadth in many places is fully 150 leagues. The population is very thinly scattered over this immense surface;^d 20,000 of the Indians are under the government of missionaries. This province is divided into Upper and Lower Oronoko. The governor and bishop reside at *San Tome de l'Angostura*, a town built in 1586, on the right bank of the river, at fifty leagues from its mouth; but since that time it has been removed to a distance of ninety leagues from the sea. The streets are straight and paved, and the climate healthy. During the great heats, the inhabitants sleep on the terraces of their houses, without, however, the dew proving injurious either to their health or sight. The old town of *San Tome* is excessively unhealthy.^e The soil in *Guiana* is particularly adapted to the cultivation of tobacco, but it presents only a small number of ill-cultivated plantations, where the proprietors raise a little cotton and sugar, and the provisions of the country. They export a considerable number of cattle. This province, destined to become of great importance by its fertility, as well as its position, will be chiefly indebted for it to the Oronoko. We have already described the course of this river, whose tributary streams, more than 300 in number, are so many canals which will bring to *Guiana* all the riches that the interior may produce. Its communication with the river Amazon, by means of several navigable branches, along which Humboldt himself has proceeded, adds to the advantages which it may procure for *Guiana*, by facilitating its commercial relations with Brazil, and the interior of the new continent. The English, always influenced by an enlight-

ened activity, are aware of the importance of this river, and have established military posts in some of the islands at its mouth, from which they protect the cutting of dye-woods, and keep up a connexion with the *Guaranos*, a peaceable tribe of Indians, who, from their wooded marshes, have set the Spanish power at defiance. Another independent and warlike nation, that of the *Aruacas*,^f occupy the sea coast to the south of the Oronoko: they received arms and spirituous liquors from the former Dutch colonies of *Essequibo* and *Demerara*, which are at present subject to the English. Thus, the sovereignty of the Spaniards, or their late colonists, is any thing but firmly established over the mouth of this important river.

In the upper part of the region of this river, between the third and fourth parallels of north latitude, nature has several times displayed the singular phenomenon, which has been named the *black waters*. The water of the *Atabapo*, the *Temí*, the *Tuamini*, and the *Guainia*, is of a coffee colour. Under the shade of the woods of the palm tree, its colour becomes of a deep black, but in transparent vessels, it becomes of a golden yellow colour. The image of the southern constellations is reflected in it with singular brilliancy. The absence of crocodiles, and of fish, a greater degree of coolness, a smaller number of mosquitoes, and a healthier air, distinguish the region of the black rivers. They, probably, derive their colour from a solution of carburet of hydrogen, resulting from the multitudes of plants that cover the soil through which they flow.^g

Spanish *Guiana* comprehends a part of those arid deserts, known under the name of the *Llanos*,^h of which the remainder belong to the province of *San Juan de los Llanos*, and form a part of *New Granada*. It is impossible to separate from it the description of them, for which we are almost exclusively indebted to the writings of Humboldt.

After quitting the humid banks of the Oronoko, and the valleys of Caraccas, places where nature has been prodigal of organic life; the traveller, struck with astonishment, enters at once upon a desert completely destitute of vegetation; not a hill, not a rock rises in the midst of this immense waste. Over an extent of more than two thousand square leagues, the burning soil nowhere varies more than a few inches in its level. The sand, like a vast sea, presents curious phenomena of refraction and mirage. Travellers are directed in their journeys by the course of the stars, or by some scattered trunks of the *Mauritia* palmⁱ and the *Embothrium*, which are here described at great distances. The earth only here and there exposes horizontal shattered strata, which often cover a space of two hundred square miles, and are sensibly more elevated than the surrounding surface. Twice every year, the appearance of these plains becomes totally changed. At one time, they are as bare as the sands of *Lybia*; at another, they are covered with a verdant turf, like the elevated *Steppes* of middle Asia. On the arrival of the first colonists, they were found almost uninhabited. To facilitate communication between the coast and *Guiana*, some establishments have been formed on the banks of the rivers; and, in the still more remote regions of this immense country, they

^a Dauxion Lavaysse, Voyage, II. 137. 313.

^b See Humboldt's Personal Narrative; English translation, IV. 123.

^c "1,200,000 piastres."

^d The natives who have acknowledged the Spanish authority, including those under the direction of the missionaries, are estimated at about 58,000. The independent natives are considered as more numerous.—M.B.

^e Leblond's Treatise on the Yellow Fever, p. 141. (Fr.) To the new town, where he resided ten months, he gives the shorter name of *Angostura*.

^f *Aruacs*, *Arrowauks*.

^g A. de Humboldt, *Tableaux de la Nature*, II. 192.

^h Pronounced *Llanos*.

ⁱ *Mauritia flexuosa*, L. Suppl. p. 454.

have begun to rear cattle, which have multiplied to an amazing extent, notwithstanding the numerous dangers to which they are exposed during the dry season, as well as that of the rains, which is followed by inundations. To the south, the plain is surrounded by a savage and frightful solitude; forests of impenetrable thickness cover the humid country, situated between the Oronoko and the Amazon. Immense masses of granite contract the beds of the rivers. The mountains and forests incessantly resound with the deafening noise of cataracts, the roaring of beasts of prey, and the hollow howling of the bearded monkey,^a which prognosticates rain. The alligator, stretching himself on a sand-bank, and the boa, concealing in the mud his enormous coils, anxiously await their prey, or repose themselves after carnage.

In the forests, and the plains, live nations of different races, and of various degrees of civilization. Some of them, separated from each other by their languages, which have a striking dissimilarity, are a wandering people, completely strangers to agriculture, who live on ants, gum, and earth; and are, in short, the very outcasts of the human species. Of this description, are the *Ottomacs*, and the *Yaruras*. The earth which is eaten by the *Ottomacs* is fat and unctuous, a genuine potter's clay,^b of a greyish yellow tint, owing to the presence of a little oxyd of iron; they select it with a great deal of care, and procure it from particular beds on the banks of the Oronoko and the Meta. They distinguish by the taste one species of earth from another; for it is not every kind of clay that proves equally agreeable to their palate. They knead this earth into balls of from four to six inches in diameter, and roast them before a slow fire, until their surface begins to turn red. When they are desirous of eating one of these balls they wet it again. This savage and ferocious people live on fish, lizards, and fern roots, when they are to be procured; but they are so particularly fond of clay, that they every day eat a little after their food, during the very season when they have other aliments at their disposal.^c The missionaries, who, among the tribes to the west of the Oronoko, have converted the *Betoys* and the *Maypures*, have observed in their language, as well as in that of the *Yaruras*, a regular and even very artificial syntax. The *Achaguas* speak a dialect of the *Maypure*.^d To the east, the mission of Esmeralda is the most remote station. The *Guaiacas*, a very white, very diminutive, almost pigmy, but exceedingly warlike race of people, inhabit the country to the east of Passimoni. The *Guajaribes*, a deep copper coloured, and extremely ferocious tribe, even supposed to be cannibals, prevent travellers from penetrating to the sources of the Oronoko. Mosquitoes, and a thousand other stinging and venomous insects, swarm amidst these lonely forests. The rivers are filled with alligators, and with the little fish, called *caribes*, the ferocity of which is equally to be dreaded. Other tribes in the eastern part of the country, such as the *Muquiritans* and *Makos*, have fixed habitations, and live on the fruits which they cultivate; they possess intelligence, and more sociable manners. The prevailing nation along the coast, from Surinam to Cape de la Vela, was formerly that of the Carib-

beans, or Caribs, now almost exterminated by the Europeans. It is impossible to know whether this race originally came from the Antilles, or extended itself thither. Of all the Indian nations, the Caribbeans are most distinguished by their activity and courage; they inhabit villages governed by an elective chief, whom the Europeans denominate captain. When they proceed to battle, they assemble at the sound of the conch, or sea shell. Next to the Patagonians, the Caribbeans are, perhaps, the most robust nation with which we are acquainted; according to the older travellers, they are said to be *Cannibals*, or *Anthropophagi*. At least, it appears certain that they eat their enemies, devouring their flesh with the voraciousness of vultures. The Caribbean language, one of the most sonorous, and one of the softest in the world, contains nearly thirty dialects; it even appears to be poetical, if we may be allowed to judge from the names of some of the tribes. One of them is called the *Daughter of the Palm-tree*; another, the *Sister of the Bear*.^e The languages spoken by the tribes of the interior, sound much harsher to the ear. With the *Salivas*, the pronunciation is completely nasal; and with the *S'tufas*, entirely guttural; while the *Betoys* always sound the dental letter; and the *Quaivas*, and the *Kirikoas*, as well as the *Ottomacs*, and the *Guaranes*, emit, with incredible volubility, such peculiar sounds, that it is almost impossible to imitate them. The language of the *Achaguas*, is the only one of the interior that is possessed of any harmony.^f Vast tracts of country between the Casiquiari and the Atabapo, are inhabited only by gregarious monkeys, and by tapirs.

Figures engraved on rocks, prove, nevertheless, that this solitude was once inhabited by a people, who had arrived at a certain degree of civilization. Between the second and fourth parallels, in a wooded plain, surrounded by the Oronoko, the Atabapo, the Rio Negro, and the Casiquiari, rocks of sienite and granite are seen covered with colossal symbolical figures, representing alligators, tigers, domestic utensils, and images of the sun and moon. At the present day, this remote corner of the globe is uninhabited, over a space of more than five hundred square miles. The neighbouring tribes are composed of savages, who are sunk to the very lowest degree in the scale of civilization, lead a wandering life, and are far from being capable of tracing the rudest hieroglyphic on these rocks. Similar monuments are met with near Caicara, and Urnana. Perhaps, some day or other, all this may be traced to the Muisca Indians, of whom we shall immediately speak, when describing the *new kingdom of Granada*.

The subdivisions of this kingdom are imperfectly known. The provinces of *Panama* and of *Darien*, although bearing the title of the kingdom of Terra Firma, are dependent on the viceroy of New Granada. The kingdom of Quito, containing the provinces of *Quito*, or *Tacames*,^g *Macas*, *Quizos*, *Jaen de Bracamoros*, and *Guayaquil*, equally retains its title, although it is subject to the new kingdom of Granada. The latter, properly so called, comprehends the following provinces: *Santa Fé de Bogota*, and *Antioquia*, in the centre; *Santa Marta*, and *Carthagena*, to the north, on the Caribbean Sea; *Son*

^a Alouatte, howler.—P.

^b Containing 50 per cent. of silica, 40 of alumina, 4 of magnesia, 1 of iron; exclusive of water. Vauquelin. Bull. Phil. No. XXVI.

^c Tableaux de la Nature, I. 131—137.

^d Hervas, Catalogo della lingue, p. 51—53.

^e Hervas, p. 54.

^f Viagero Universal, XXII. 89.

^g *Tacames*, or *Esmeraldas*, is a distinct province from *Quito*, on the coast of the Pacific. That of *Quito* is in the Andes, adjoining it on the east.—Pinkerton.—P.

Juan de los Llanos, to the east; *Popayan*, to the south; *Barbacoas*, and *Choco*, with its dependencies,^a *Beriquete*, *Novita*, and *Raposo*, to the west, towards the Pacific Ocean.

New Granada comprehends a remarkable diversity of climate; temperate, even cold and frosty, but very healthy, on the elevated table lands; the air is burning, suffocating, and pestilential, on the sea-shore, and in some of the deep valleys of the interior. At Carthagena and Guayaquil, the yellow fever is endemic.^b The town of Honda, although situated at the height of 900 feet^c above the level of the sea, experiences, in consequence of the reflection from the rocks, so intense a degree of heat, that the people dare not place their hand upon stones exposed to it; and the water of the river Magdalena acquires the temperature of a warm bath. The rains fall without intermission during winter, which is determined, by the position of the place, to the north or south of the equator; but some spots enjoy a perpetual spring. The crest of the Andes is often enveloped in thick fogs; and the bay of Choco is the scene of continual storms. The two rivers Magdalena and Cauca, both of which run directly from south to north, have their rise and termination in New Granada; each of them flows at the bottom of one of the deep valleys of the Andes, and they form a junction under the 9th degree of north latitude. The course of the Cauca is obstructed by rocks and rapids; but the Indians are able to pass them in their canoes. The Magdalena is navigable as far as Honda; from which you proceed to Santa Fé, by terrific roads, through forests of oak trees, Melastomas and Cinchonas. The unvarying nature of the temperature in each zone, the want of an agreeable succession of seasons, perhaps also the awful volcanic catastrophes to which the high country is frequently exposed, have there diminished the number of vegetable species. At Quito and at Santa Fé, vegetation is less varied than in other regions equally elevated above the ocean. In the Andes of Quindiu, and in the temperate forests of Loxa, we find the cypress, the fir, and the juniper; the mountains raise their snowy pyramids in the midst of the styrax, the passion-flower tree, the bambusa, and the wax palm. The cacao of Guayaquil is in great estimation: it has even been attempted, in the environs of that town, to introduce plantations of coffee, which have succeeded extremely well. The cotton and tobacco are excellent. A great deal of sugar is likewise produced; it is surprising, however, that the greatest quantity is obtained, not in the plains along the banks of the river Magdalena, but on the slope of the Cordilleras, in a valley, on the road from Santa Fé to Honda, which, according to the barometrical measurements of Humboldt, is elevated from 3600 to 6300 feet^d above the level of the sea. The inhabitants make use of the expressed juice of the fruit of the uvilla (*Cestrum tinctorium*) instead of ink; and there is a royal order, which enjoins the viceroys to make use of this blue juice of the uvilla in their official documents, because it is more indestructible than the best ink of Europe.

The mineral productions are rich and varied. In the

valley of Bogota beds of coal are seen at the elevated height of 7680 feet^e above the level of the ocean. It is very remarkable, that platinum is not met with in the valley of Cauca, or to the east of the western branch of the Andes, but only in Choco, and at Barbacoas, to the west of the mountains of sandstone, which rise on the west bank of the Cauca.

The kingdom of New Granada annually produces twenty-two thousand marks of gold, and an inconsiderable quantity of silver. In the mints of Santa Fé and Popayan, about two million one hundred thousand piastres of gold are coined, or eighteen thousand three hundred marks, equivalent to 436,666*l.* sterling. The exportation of this metal in ingots and articles of jewellery, amounts to four hundred thousand piastres, or 104,166*l.* sterling.

All the gold furnished by New Granada is the product of the washings of alluvial earth.^f They are also acquainted with veins of gold in the mountains of Guamoer^g and Antioquia; but the working of them is almost entirely neglected. The richest deposits of alluvial gold are to the west of the central Cordillera, in the provinces of Antioquia, and Choco, in the valley of the Rio Cauca, and on the shores of the great ocean, in the district of Barbacoas.

The province of Antioquia, which can be penetrated only on foot, or by being carried on men's backs, contains veins of gold, which are not worked, merely from want of hands. The largest piece of gold that has been found at Choco weighed twenty-five pounds. All the gold is collected by negro slaves. Choco alone would be able to produce more than twenty thousand marks of washed gold, if, in attempting to improve the salubrity of this region, one of the most fertile of the new continent, the government were to establish an agricultural population there. The country richest in gold is, at the same time, scourged with continual famine. Inhabited by unhappy African slaves, or by Indians who groan under the despotism of corregidores, Choco has remained precisely what it is at present, for the last three hundred years, an impenetrable forest, without a single trace of cultivation, pasturage, or roads. The price of provisions is so exorbitantly high there, that a barrel of flour from the United States is worth from sixty-four to ninety piastres, or from 1*l.* 6*s.* to 1*l.* 15*s.* The maintenance of a muleteer costs a piastre, (4*s.* 2*d.*)^h or a piastre and a half a day. The price of a quintal of iron amounts, in time of peace, to forty piastres. This high price ought not to be attributed to the accumulation of the representative signs, which is very small; but to the enormous difficulty of conveyance, and to that unfortunate condition of things, in which the entire population consumes without producing.

The kingdom of New Granada contains extremely rich veins of silver. Those of Marquetones would surpass Potosi, but they are not worked.ⁱ Copper and lead they disdain to mention. The river of emeralds^k flows from the Andes to the north of Quito. It is at Muzo, in the valley of Tunca,^l near Santa Fé de Bogota, that the principal modern mines, of what are called the emeralds of Peru, are situated, which are deservedly preferred to all others, since those of Egypt have been neglected. These eme-

^a "Demembremens," properly, new provinces, detached from the old province of Choco.—P.

^b Leblond, *Traité de la fièvre jaune*, p. 175 and 183.

^c "150 toises."

^d "600 to 1050 toises."

^e "1280 toises."

^f *Terrains du Transport*, Daubuisson.

^g Guamoer?—P.

^h The Spanish piastre of exchange is 3*s.* 7*d.* sterling.—P.

ⁱ *Viajero Universal*, vol. XXII. p. 277.

^k Rio Esmeraldas.

^l Tunja.

rals are sometimes met with in sterile veins, which traverse compound rocks, or clay slate, and sometimes in accidental cavities which occur in the masses of some granites. Occasionally they are grouped with crystals of quartz, felspar, and mica; many of them have their surface covered with crystals of sulphuret of iron, and others are found enveloped in carbonate or sulphate of lime.^a Those that are found in the Indian sepulchres are shaped into circles, cylinders, cones, and other figures, and have been pierced with great precision; but we are unacquainted with the process which must have been employed for this purpose. The gold mines of Antioquia and Guamoco contain small diamonds.^b Sulphuret of mercury, or cinnabar, is also found in the province of Antioquia, to the east of the Rio Cauca, in the mountain of Quindiu, at the passage of the central Cordillera; and, lastly, at Cuenca, in the kingdom of Quito. This mercury is found in a formation of quartzose sandstone, which is 720 toises (4320 feet) in thickness, and contains fossil wood and asphaltum.

We now proceed to the more remarkable places of this kingdom. Santa Fé de Bogota, the residence of the viceroy and an archbishop, and the seat of an Audiencia and a University, contains magnificent churches, and houses, five superb bridges, and more than thirty thousand inhabitants.^c The air is constantly temperate. The wheat of Europe, and the sesame of Asia, produce abundant crops, and at all seasons. The plateau on which the town of Santa Fé de Bogota is situated, bears a resemblance, in several respects, to that which incloses the Mexican lakes. Both the one and the other are more elevated than the convent of Saint Bernard; the former being 8190, the latter 7008 feet^d above the level of the sea. The valley of Mexico, surrounded with a circular wall of porphyritic-mountains, is still covered with water in its centre. The plateau of Bogota is equally encircled by lofty mountains; while the perfect level of its surface, its geological constitution, the form of the rocks of Suba and Facatativa, which rise like little islands in the midst of the savannas, all appear to indicate the existence of an ancient lake. The river Funzha, commonly called *Rio de Bogota*, after uniting together the waters of the valley, rushes headlong through a narrow opening into a crevice, which descends towards the basin of the river Magdalena. The Indians attribute to Bochica, the founder of the empire of Bogota, or Condinamarca, this opening in the rocks, and the creation of the cataract of *Tequendama*. Contemplating these rocks, which appear to have been hewn by the hand of man,—this narrow gulf, into which a river precipitates itself, after it has collected all the waters of the valley of Bogota—the rainbows, that change their appearance every instant, and glitter with the most brilliant colours—the immense column of vapour, which, like a thick cloud, rises to such a height, as to be distinguished at the distance of five leagues in the environs of the town of Santa Fé—it is not at all astonishing that a superstitious people should have ascribed to them a miraculous origin. There scarcely exists in the world another cascade which, to so considerable a height, adds so great a body of water; to within a short distance of the *Salto*, the Rio de Bogota preserves

a breadth of two hundred and seventy feet. The river becomes a great deal narrower near the cascade itself, where the crevice, which appears to have been formed by an earthquake, has an opening of only thirty or forty feet. During the driest seasons, the volume of water, which at two bounds rushes down a depth of five hundred and thirty feet,^e still presents a profile of 756 square feet.^f The enormous mass of vapour which every day arises from the cascade, and is again precipitated by the contact of the cold air, greatly contributes to the exceeding fertility of this part of the plateau of Bogota. At a short distance from Canoas, on the height of Chipa, a magnificent prospect is enjoyed, which astonishes the traveller by the striking contrasts it presents. After just leaving behind him cultivated fields, producing wheat and barley, he now finds himself surrounded by oaks, alder-trees, and plants which remind him of the vegetation of Europe, intermingled with the azalea, *Alstonia theiformis*, begonia, and yellow cinchona,^g when, all at once, he discovers from a terrace, as it were, and at his very feet, a luxuriant country, waving with the palm-tree, the banana, and the sugarcane. As the fissure down which the Rio de Bogota rushes, communicates with the plains of the hot region, (*tierra caliente*,) some of the palms are seen growing up to the foot of the cataract. This peculiar circumstance has led the inhabitants of Santa Fé to say, that the cataract of *Tequendama* is so high, that the water falls, at one leap, from the cold (*tierra fria*) into the hot country. It is quite manifest, that the difference of height of eighty-seven toises, or 522 feet, is not sufficiently considerable to influence, in a sensible manner, the temperature of the air. It is the perpendicular section of the rock that separates the two vegetations in so definite a manner.

There is still another natural phenomenon which deserves to be noticed. The valley of Icononzo or Pandi, is bordered with rocks of so extraordinary a figure, that they appear to owe their peculiar shape to human labour. Their bare and arid summits form the most picturesque contrast with the tufts of trees and herbaceous plants that cover the sides of the crevice. The little torrent that has opened itself a passage across the valley of Icononzo, bears the name of the *Rio de la Suma Paz*. This torrent, flowing in an almost inaccessible bed, could not have been crossed without great difficulty, if nature herself had not formed two bridges of rock, an object well worthy of fixing our attention. The deep crevice through which the torrent of La Suma Paz precipitates itself, occupies the centre of the valley. Near the bridge, it preserves, for a distance of more than 12,000 feet,^h a direction from east to west. The river forms two beautiful cascades at the point where it enters the crevice, and at the point where it issues from it. It is very probable that this crevice has been formed by an earthquake. The surrounding mountains are composed of sandstone, with an argillaceous cement. This formation, which reposes on the primitive schist of Villeta, extends from the rock-salt mountain of Zipaquirá to the basin of the river Magdalena. In the valley of Icononzo the sandstone is composed of two distinct rocks; one, a very compact and quartzose sandstone, cou-

^a *Viajero Universal*, vol. XXII. p. 277.

^b Delomieu, *Magasin Encyclopédique*, II. n. 6. p. 149.

^c *Viajero Universal*, vol. XXII. p. 277. l. c.

^d "1335 and 1168 toises."

^e Fr. measure. 565 feet Eng. Bouguer stated its height at 200 fathoms,

VOL. II.—NOS. 83 & 84.

and Alcedo at 220 *estados*, (fathoms,) or 1320 feet. These measures were erroneous.—P.

^f "21 sq. toises."

^g *Cinchona cordifolia*.

^h "2000 toises."

taining little cement, and presenting little or no fissure of stratification, reposes on a very fine-grained schistose sandstone, which is divided into an infinite number of very thin, and almost horizontal layers. Humboldt^a imagines that the compact and quartzose mass resisted the force which rent these mountains, at the period when this crevice was formed; and that it is an uninterrupted continuation of this stratum, which serves as a bridge for crossing from one part of the valley to the other. This natural arch is forty-seven English feet in length, and forty-one feet three inches broad.^b In the centre it is six feet six inches^c thick. According to the experiments of Humboldt, the upper bridge is 317 feet^d above the level of the torrent below. Ten fathoms (*toises*) below this first natural bridge, there is another, to which one is conducted by a narrow footpath, that descends on the side of the crevice. Three enormous masses of rock have fallen in such a manner as mutually to support each other. The middle one forms the key of the vault, an accident which might have suggested to the native Indians the first idea of the arch in masonry, a contrivance alike unknown to the nations of the New World, and to the ancient inhabitants of Egypt.

In the middle of the second bridge of Icononzo, there is a hole of 300 square feet in size, through which one can see the bottom of the abyss; and it was here that our traveller made experiments on the fall of bodies, in order to ascertain its depth.^e The torrent appears to flow within a gloomy cavern. The melancholy noise that floats on the ear, is owing to immense flocks of nocturnal birds that inhabit the crevice. The Indians affirm that these birds are as large as a hen, have eyes like the owl, and a curved beak. It is impossible, however, to procure any of them, on account of the depth of the valley. The elevation of the natural bridge of Icononzo is 2748 feet^f above the level of the sea.

The kingdom of *Terra Firma* is now become a rural solitude. The town of Porto Bello on the north sea, and that of Panama on the Pacific Ocean, were once in a flourishing condition, from their trade in the precious metals, which passed from Peru by the isthmus of Panama, to be transported to Europe. At present, Buenos Ayres is the entrepot. The isthmus of Panama, as well as the province of Darien, produces cacao, tobacco, and cotton; but the air, at once humid and hot, renders these places almost uninhabitable. The country is hilly; but there are also fertile plains. Vegetation every where displays a surprising degree of luxuriance. The rivers are numerous, and the waters of some of them bring down gold. At its narrowest part, the isthmus of Panama is only eight leagues in breadth. The rocky nature of the soil, however, opposes obstacles, probably of an insurmountable nature, to the opening of a navigable canal for large vessels.

During the last few years *Carthagena* has been enlarged and embellished; and it now boasts of an episcopal see, a university, and a safe and deep harbour, defended by several forts;^g but the unhealthiness of its environs is its best defence against an enemy. Its population amounts to

about 25,000 inhabitants. It is the capital of a province of the same name, a hot and humid country, covered with mountains and woods, but very fertile in every species of produce.

In order to avoid the excessive heat and the diseases that prevail during summer at Carthagena, those Europeans who are not habituated to the climate, take refuge in the interior of the country, at the village of *Turbaco*, built on an eminence, at the entrance of a majestic forest, which extends as far as the river Magdalena. The houses are chiefly constructed of bamboo, and covered with palm leaves. Limpid springs issue from a calcareous rock, which contains numerous remains of coral petrifications; and a refreshing shade is afforded by the shining foliage of the *Anacardium Caracoli*,^h a tree of colossal size, to which the natives attribute the property of attracting, from a great distance, the vapours that float in the atmosphere. The surface at Turbaco being elevated more than 900 feetⁱ above the level of the sea, they enjoy a delicious coolness, especially during the night. A very curious phenomenon is observed in its neighbourhood. The *volcancitos* are situated at the distance of 18,000 feet^k to the east of the village of Turbaco, in a thick forest, which abounds with the *Toluifera balsamum*; the *gustavia* with flowers of the *Nymphaea*;^l and with the *Cavanillesia mucundo*,^m the numerous and transparent fruits of which resemble lanterns suspended from the extremity of the branches. The land gradually rises to a height of 120 or 150 feetⁿ above the village of Turbaco; but the soil being every where covered with vegetation, prevents us from distinguishing the nature of the rocks that rest upon the above-mentioned calcareous mass, impregnated with sea-shells. In the middle of an extensive plain, enclosed on all sides by the *Bromelia Karatas*, eighteen or twenty small cones are observed, the height of which is not more than from twenty to twenty-five feet. These cones are formed of a blackish-grey clay, and at the top of each is found an opening filled with water. On approaching these little craters, is heard, at intervals, a hollow and pretty loud noise, which precedes, by from fifteen to eighteen seconds, the disengagement of a great quantity of air. The force with which this air rises above the surface of the water, induces us to suppose, that, in the interior of the earth, it experiences a high degree of pressure. Humboldt generally counted five explosions in two minutes. Very frequently this phenomenon is accompanied with an ejection of mud. It is affirmed that the cones do not undergo any perceptible change of form during the space of a great number of years; but the force with which the gas ascends, and the frequency of the explosions, appear to vary according to the seasons. The analyses of Humboldt have proved that the air thus disengaged, does not contain a thousandth part of oxygen.^o It is azotic gas, of a purer quality than what we commonly prepare in our laboratories.

St. Martha, besides the advantage of a healthy situation, also boasts of a secure, spacious, and well-defended harbour. The province of St. Martha is extremely fertile;

^a See Researches, I. 57. English translation.

^b "44 feet by 36 feet 11 in. Fr. measure."

^c "6 feet 3 in. Fr."

^d "298 feet, Fr."

^e See Researches, I. 57. Eng. trans.

^f "458 toises."

^g Viajero Universal, XXII. p. 301. et seq.

^h See page 282.

ⁱ "150 toises."

^k "3000 toises."

^l *Pivigara superba*—Humboldt.

^m *Cavanillesia platanifolia*—Humboldt.

ⁿ "20 to 25 toises."

^o See Researches, II. 98. Engl. tr.

it contains mines of gold and silver, abundance of salt, and manufactories of cotton and earthen ware. *Rio de la Hacha*, situated on the sea shore, and in a fertile district, was formerly enriched by a pearl fishery.

To the south east of Santa Fé de Bogota, and in the interior of the country, we find the province of San Juan de los Llanos, the burning and sterile plains of which we have already described. But towards the south there are provinces more happily situated, and some considerable towns. *Popayan*, containing 20,000 individuals, the greater part of whom are Mulattoes, once flourished by means of its commerce, as an entrepot for Quito and Carthagena. It is built in a picturesque situation on the river Cauca, at the foot of the volcanoes of Suroce and Sotara, which are covered with snow. *Pasto* is a small town, situated at the base of a terrible volcano, and surrounded by thick forests, among marshes, in which mules sink up to the breast. There is no method of reaching this place except through deep and narrow ravines, that resemble the galleries of a mine. The whole province of *Pasto* is an elevated plateau chilled by an atmospheric temperature, almost below the point at which vegetation can exist, and surrounded by volcanoes and solfaterras, which continually disengage volumes of smoke. The wretched inhabitants of these frightful deserts possess no other kind of food than potatoes. When, unhappily, these fail them, they proceed to the mountains to eat the trunk of a small tree called the *Achupalla*. This same tree, however, being the food of the bear of the Andes, that animal frequently disputes with them the only nourishment which these elevated regions can afford.

The province of *Choco* would be richer in the fertility of its hills, and the excellent quality of its cacao, than in its mines, if, unfortunately, all human industry were not entirely interdicted by its cloudy and burning climate. M. Marmontel has painted this coast in colours that are as just as they are lively: "An atmosphere, loaded with thick clouds, where the winds howl and the thunder roars, and from which tempestuous rains incessantly descend; mountains covered with dark forests, the wreck of which covers the ground, while their branches, thickly interwoven, are impenetrable to the light of day; marshy valleys, through which impetuous torrents incessantly roll; shores bristling with rocks, against which the waves, elevated by the tempests, dash themselves with hollow groans; the noise of the winds in the forests resembling the howling of wolves, and the yelling of tigers; enormous snakes, that crawl under the humid grass of the marshes, and, with their vast coils, encircle the trunks of trees; a multitude of insects, engendered by the stagnant air, whose remorseless eagerness is bent but upon one object, as their prey." But, the author of the *Incas* is wrong in applying the whole of this description of the coast of *Choco* to the island of *Gorgona*, where Pizarro came to seek refuge with the twelve companions who had faithfully attached themselves to his fortunes. *Gorgona*, in the bay of *Choco*, as well as the *Archipelago of the Pearl Islands*^a in the bay of Panama, are more inhabitable than the neighbouring continent. In the interior of the province of *Choco*, the ravine of *Raspadura* unites the neighbouring sources of the *Rio Noanama*, likewise called the *Rio San Juan*, with

the little river *Guito*. This latter river, uniting with two others, forms the *Rio Atrato*, which empties itself into the sea of the Antilles, while the *Rio San Juan* falls into the great ocean. A very active monk, curate of the village of *Novita*, made his parishioners dig, in the ravine of *Raspadura*, a little canal, which is navigable during the heavy rains, and by means of it canoes, laden with cacao, have passed from one sea to the other. This little canal, which has existed since the year 1778, unites together, on the shores of the two oceans, two points that are seventy-five leagues distant from one another.

Let us again ascend the Andes, where we shall breathe a milder and more salubrious air; here is situated the celebrated city of *Quito*, the ancient capital of the second Peruvian monarchy, whose inhabitants excel in almost all the arts and trades. They are especially famed for their manufacture of cloths and cottons, which they dye blue, and furnish to the whole of Peru. The commerce of this town is likewise very active; but the streets are too uneven to admit of the use of carriages. It is the seat of a Supreme Tribunal, and of a Bishop. Placed at an elevation of 1480 toises, or 3107 English yards, above the level of the ocean, this town no longer enjoys that perpetual spring which its local situation appeared to insure. The atmosphere has become lowering and cloudy, and the cold rather severe, since the fourth day of February, 1797, the epoch at which a horrible earthquake overwhelmed the entire province of *Quito*, and destroyed, in a single instant, 40,000 people. Such has been the change of temperature, that the thermometer is generally at 40° F. and seldom rises as high as 61° or 63° F.; while Bouguer found it constantly at 59° or 61° F.^b Since that time, earthquakes have been almost continual. Notwithstanding the horrors and the dangers with which nature has thus surrounded them, the population of *Quito*, amounting to 50,000 individuals, breathes nothing but gaiety and luxury; and no where, perhaps, does there reign a more decided, or a more general taste for pleasure. The inhabitants of this town are lively and amiable.

Guayaquil, inhabited by 18,000 persons, is a sea port, and has a commodious dock yard, supplied with timber from the forests in its immediate neighbourhood. It carries on a considerable trade of exchange between the ports of Mexico and those of Peru and Chili. The vegetation in the environs, says Humboldt, is majestic beyond all description. The palms, the *Scitamineæ*, the *Plumeria*, and the *Tabernamontana*, abound in every direction. Don Alcedo affirms, that, in the province of *Guayaquil*, a strong and solid kind of wood is met with, which the inhabitants prefer for the construction of small vessels, especially for the keel and ribs, because it is incorruptible, and resists the attacks of worms better than any other kind. It is very easily worked, of a deep colour, and is called *Guachapeli*, and *Guarrango*.

The provinces of *Quixos*, and of *Macas*, owe to their position on the eastern slope of the Andes, the peculiarities of their temperature. Although they are only two degrees distant, to the south of the equator, winter commences there in April, and lasts till September, the period of spring on the plateau. The climate is hot and moist. Their principal production is tobacco.

^a Archipelago de las Perlas.

^b The height of the thermometer in the original is + 4°, + 16° or 17° and + 15° or 16°. If Reaumur's, it will give 41° F., 68° or 70½° F., and

65½° or 68° F. If the centigrade, 39.2° F., 60.8° or 62.6° F., and 59° or 60.8° F.—P.

The vast province of *Maynas* extends along the river Amazon. It contains but a very few Spanish settlements; the principal one is *San Joaquin de Omaguas*. The *Maynas* and the *Omaguas* are the principal indigenous nations; a small number of them have fixed themselves near the missions; but the greater part wander in the forests, living by the chase and by fishing. The country produces white and black wax, and cacao.

We should not do justice to our description of the kingdom of Quito, if we were to pass over in silence the terrific volcanoes which have so often overwhelmed the country, and swallowed up whole cities at a time. The majestic *Chimborazo* is probably nothing but an extinguished volcano. The snow which for centuries has crowned its colossal peak, will probably, one day or other, be melted by the remorseless fires pent up within its vast and fathomless caverns, resuming their destructive activity.

Pichincha is one of the greatest volcanoes on the surface of the globe. Its crater, hollowed out in basaltic porphyries, was compared by La Condamine to the chaos of the poets. This immense mouth was at that time filled with snow, but, afterwards, Humboldt found it burning. From the circumference of the crater rise, as if shooting up from the abyss below, three rocky peaks, which are not covered with snow, because it is constantly melted by the vapours that exhale from the volcano. In order the better to examine the bottom of the crater, we lay down flat on our breasts; and I do not believe that the imagination could figure to itself any thing more melancholy, gloomy, and terrific, than what we now behold. The mouth of the volcano forms a circular hole of nearly a league in circumference, the sides of which, a perpendicular precipice, are covered above with snow to their very edge. The interior was of a deep black; but the gulf is so immense that we could distinguish the tops of several mountains that are situated within it. Their summits appeared to be two or three hundred fathoms (*toises*) below us—judge then where must be their base. I myself have no doubt that the bottom of the crater is on a level with the city of Quito.”

Cotopaxi is the most elevated of those volcanoes of the Andes, from which, at recent periods, there have been eruptions. Its absolute height is 12,392 English feet;^a it would consequently exceed by more than 2,550 feet^b the height of mount Vesuvius, even supposing that it were piled on the summit of the Peak of Teneriffe. *Cotopaxi* is likewise the most formidable of all the volcanoes of the kingdom of Quito; and its eruptions have been the most frequent and the most destructive. The cinders and fragments of rocks that have been ejected by this volcano, cover the neighbouring valleys to an extent of several square leagues. In 1758, the flames of *Cotopaxi* shot up to a height of 2,700 feet^c above the edge of the crater. In 1744, the roaring of this volcano was heard as far as Honda, a town situated on the banks of the river Magdalena, at a distance of two hundred leagues. On the 4th April, 1768, the quantity of ashes vomited up from the mouth of *Cotopaxi* was so great, that in the towns of *Hambato* and *Tacunga*, the sky continued as dark as night until the third hour after mid-day. The eruption which took place in the month of January, 1803, was preceded by a

frightful phenomenon—the sudden melting of the snows that covered the mountain. For more than twenty years neither smoke nor any distinguishable vapour had issued from the crater, and yet, in a single night, the subterranean fire had become so active that, at sun-rise, the external walls of the cone, strongly heated, had become naked, and had acquired the black colour which is peculiar to vitrified scorix. At the port of *Guayaquil*, fifty-two leagues in a straight line from the edge of the crater, Humboldt heard, day and night, the roaring of this volcano, like repeated discharges of artillery.^d

Were it an established fact that the proximity of the ocean contributes to feed volcanic fire, we should be astonished to see that the most active volcanoes of the kingdom of Quito, *Cotopaxi*, *Tunguragua*, and *Sangay*, appertain to the eastern chain of the Andes, and, consequently, to that which is farthest removed from the coast. *Cotopaxi* is more than fifty leagues from the nearest shore.

To our description of the kingdom of Quito, we ought to add that of the *Gallapagos Islands*. This archipelago, situated under the equator, at 220 leagues to the west of the continent of America, contains volcanic peaks in the more eastern islands. The Cactus and the Aloe cover the sides of the rocks. In the western islands a black and deep mould affords nourishment to large trees. Flamingos and turtle doves fill the air, and the beach is covered with enormous turtles. No trace whatever indicates the residence of man. Neither the Malays of the great Ocean, nor any of the tribes of America, have ever landed on these lonely shores. Dampier and Cowley observed springs, and even rivers, in some of these islands, the peculiar Spanish names of which have given place to English appellations, at least in all our modern charts. *Santa Maria de l'Aguada* appears identical with *York Island*. The largest among the twenty-two that are known, are those of *Albemarle* and *Narborough*. Cowley describes the enchanted island, which presents a varied prospect of what appears to be a walled town, and a strong castle in ruins. Several harbours and roadsteads invite Europeans to form establishments there.

There are many Indian tribes in the kingdom of New Granada. Many of them still enjoy their independence, and almost all of them retain their language and particular customs. The *Guairas* or *Guagniros*, occupy part of the provinces of *Maracaibo*, *Rio de la Hacha*, and *St. Martha*, and live on friendly terms with the *Motilonas*, who inhabit the lands watered by the *Muchuchies* and the *St. Faustin*, as far as the valley of *Cucuta*. They infest the passes of the mountains; pillage, conflagration, and murder, mark their incursions into the plains. The *Chilimes*, and another band of the *Guairas*, are freebooters on the banks of the *Magdalena*.^e The *Urabas*, the *Zitaras*, and the *Oromisas*, form three independent states in the province of *Darien*, the first under a native prince called the *Playon*, the two last under a republican government.^f The *Curacunas* dwell on the mountains of *Choco* and *Novita*; they extend their ravages as far as *Panama*, and even attack small vessels in search of plunder.^g The ancient inhabitants of *Quito*, in common with the savage tribes of *Africa*, are said to have spoken many different dialects. The missionaries have specified not less than a hundred

^a “2052 toises.”

^b “More than 400 toises.”

^c “450 toises.”

^d A. de Humboldt, *Vues et Moeurs*, pl. X.

^e *Viajero Universal*, XXII. p. 298.

^f *Hervas*, *Catalogo delle lingue*.

^g *Viajero Universal*, XXII. p. 297.

and seventeen; it appears, however, that the language of the *Quitos* prevailed over the plateau, and that of the *Sciros* along the coast. It is remarkable that the name of the *Sciros* should be the same as that of an ancient European tribe, famous for its migrations and warlike exploits.^a They are said to have conquered the upper districts, and introduced their language into that part of Quito in the year 1000. At the time of the arrival of the Spaniards, the Peruvians were in possession of the country, and their language was generally adopted; but must we therefore conclude, with Hervas, that the *Sciros* spoke a Peruvian dialect? In the year 1600, the *Cofanes*, one of the hundred and seventeen tribes of Quito, are said to have amounted to fifteen thousand souls; they spoke a peculiar language, which was also spoken by the inhabitants of *Anga Marca*, and in which a Jesuit has written an epitome of Christianity.^b Of the fifty-two tribes of Popayan, those of *Guasinca*, *Cocanuca*, and *Paos*, had three distinct languages, which are still partly preserved in the writings of the missionaries. The *Xibaros*, the *Macas*, and the *Quizos*, at one time formidable tribes, occupied the eastern declivities of the Andes, in the kingdom of Quito. Nearer the level of the sea, in the vast district of *Maynas*, are found the remains of unnumbered tribes, whose languages the missionaries have classed in the following order:—1st, Sixteen mother tongues, of which the *Andoa* has nine dialects, the *Campa* seven, and the *Mayna* four; 2dly, Sixteen scattered dialects that have no resemblance to any known mother tongue; 3dly, Twenty-two tribes, several of which are still extant, although their language is extinct; lastly, ten unknown languages. We have not included in this list the extensive tribe of the *Omaguas*; its inhabitants, spread over the whole course of the Marañon or Amazon, speak a dialect of the Guarani language in Brazil, but simpler in its grammatical forms, and more abundant in its vocabulary, from which we may infer that they had arrived at a greater degree of civilization than their kindred tribes. The migrations of this tribe of river navigators have not been clearly ascertained, but it is generally believed that they were originally from Brazil.

A civilized country, surrounded by these savage and wandering nations, is a phenomenon worthy of our particular attention.^c Santa Fé de Bogota rivals Cuzco, the city of the sun, as a centre of religious and civil institutions. We shall therefore proceed to illustrate this interesting problem in the history of society.

In the most remote period of antiquity, before the moon accompanied the earth, according to the mythology of the *Muyscas*, the inhabitants of Condinamarca, on the plateau of Bogota, lived like savages, without agriculture, laws, or religion. An aged person appeared suddenly amongst them, who came from the plains on the east of the Cordillera of Chingaza. His long and thick beard showed that his origin was not the same as that of the natives. He was known by three different names, *Bochica*, *Nemquetheba*, and *Zuhé*. Like Manco-Capac, he taught men to clothe themselves, to build cottages, to cultivate the ground, and to live in society. He brought with him a wife, to whom tradition has also given three names, *Chia*, *Yubecayguaya*, and *Huythaca*. She was remarkable for her beauty, but more so for her wickedness. She opposed all her hus-

band's labours for the happiness of the human race; by her magic she raised the waters of the river *Funzha*, and inundated the whole valley of Bogota. In this deluge, the greater number of the inhabitants were destroyed; a few only escaped to the summits of the neighbouring mountains. The aged stranger, provoked by such crimes, drove *Huythaca* from the earth; she became the moon, and began, at that period, to illuminate our planet during the night. *Bochica*, pitying those that wandered in the mountains, broke the rocks which enclose the valley on the side of *Canoas* and *Tequendama*. The waters of the *Funzha* having by this means subsided, he brought back the people to the vale of Bogota, founded cities, introduced the worship of the sun, and named two chiefs, whom he invested with the religious and civil authority. He then withdrew to *Mount Idacanzas*, in the sacred valley of *Iraca*, near *Tunja*; having lived at this place in the exercise of the most austere devotion for two thousand years, or a hundred *Muysca* cycles, he disappeared at the end of that time in a mysterious manner.

This Indian fable bears an analogy to some opinions contained in the religious traditions of different nations in the old world. The good and evil principles are personified in the aged *Zuhe* and his wife *Huythaca*. The broken rocks, through which a passage is made for the waters, recall to mind what is related of *Yao*, the founder of the Chinese empire. A remote period before the existence of the moon is taken notice of by the *Arcadians*, a people that boasted of their ancient origin. The moon was considered as a malevolent being, that increased the humidity of the earth; but *Bochica*, the offspring of the sun, drained the soil, protected agriculture, and was as much revered, as a benefactor, by the *Muyscas*, as the first *Inca* by the *Peruvians*.

There is a tradition that *Bochica*, observing the chiefs of the different tribes contending for the supremacy, advised them to choose *Huncahua* for their *zaque*, or sovereign, a person distinguished for his justice and great wisdom. The advice of the high priest was willingly obeyed, and *Huncahua* having reigned for two hundred and fifty years, made himself master of all the country from the savannas of *San Juan de los Llanos* to the mountains of *Opon*. The form of government which *Bochica* gave the inhabitants of Bogota, resembled those of *Japan* and *Thibet*. In *Peru*, the *Incas* held in their own hands the ecclesiastical and secular power, and were kings and priests at the same time. At *Condinamarca*, at a period probably anterior to that of *Manco-Capac*, *Bochica* appointed four electors, *Gameza*, *Busbanca*, *Pesca*, and *Toca*, the chiefs of their respective tribes; after his death, these persons and their descendants had the privilege of choosing the high priest of *Iraca*. The pontiffs, or *lamas*, being the successors of *Bochica*, were supposed to inherit his virtues and his sanctity. The people flocked in crowds to *Iraca*, that they might offer gifts to their high priest. Many places in which *Bochica* wrought miracles, were visited with holy ardour. In time of war, pilgrims enjoyed the protection of the princes, through whose territory they passed to repair to the sanctuary, (*chunsua*,) and to prostrate themselves before the *lama* who resided there. The secular chief was denomi-

^a The *Sciros*, *Scyri*, or *Skyri*, (*Hist. de la Géog.* p. 331.)

^b Hervas, *Catalogo*, p. 68.

^c Lucas Fernandez Piedrahita, Bishop of Panama, in his *Historia Gene-*

ral del Nuevo Reyno de Granada, a work compiled from the manuscripts of Quesada.

nated the *zaque* of Tunja, to whom the *zippas* or princes of Bogota paid an annual tribute. Thus the high priest and the *zaque* formed two distinct powers, like the dairi and secular emperor in Japan.

Bochica was not only regarded as the author of a new worship, and as the legislator of the Muyscas, but being the symbol of the sun, he measured the seasons, taught the Muyscas the use of their calendar,^a and marked the order of sacrifices to be offered at the close of the little cycles, at the period of every fifth lunar intercalation. In the dominions of the *zaque*, the day and night (or the *sua* and *za*) were divided into four parts: the *sua mena* lasted from sunrise to noon; the *sua meca*, from noon to sunset; the *zasca*, from sunset to midnight, and the *caqui*, from midnight to sunrise. In the Muysca language, *sua* or *zuhe* signifies the sun as well as a day. From *sua*, which is one of the surnames of Bochica, is derived *sue*, a European or white man, a word that was first applied to the Spaniards, who

landed with Quesada, because the natives believed them to be the children of the sun. The Muyscas computed their time by divisions of three days; hebdomadal periods were unknown in America, as well as in a part of eastern Asia. The year (*zocam*) was calculated by lunations; the civil year consisted of twenty moons, while that of the priests contained thirty-seven; and twenty of these great years formed the Muysca cycle. To express lunar days, lunations, and years, the people made use of a periodical series, the terms of which were denoted by numbers.

The language of Bogota has been almost extinct since the end of the last century; it was extended by the victories of the *zaque* Huncahua, by the warlike exploits of the *Zippas*, and by the influence of the lamas of Iraca, from the plains of the Ariari and the Rio Meta to the north of Sogamozo. This language was called by the natives, the *Chibcha*. Muysca, of which *Mozca* seems to be a corruption, signifies a man or person, but in general the natives applied it exclusively to themselves.

^a A. de Humboldt, *Vues et Monumens*, p. 128. 244, &c.

BOOK LXXXVIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Description of Peru, according to its ancient limits.

THE ancient empire of the Incas has been more than once dismembered, and Potosi has been detached from Peru; out Nature, which establishes her divisions independently of royal edicts, forces us to include in this book not only the vice-royalty of Lima, but that portion of the empire of the Incas and of Upper Peru, lately added to the vice-royalty of Buenos Ayres, which extends to the plains of Chaco and the defiles of Tarija. Sierra Vilcanota is the political limit of the two vice-royalties, but such boundaries are of little importance at a time when the armies of Lima and Buenos Ayres are contending for the wrecks of these unfortunate countries.

Two chains of the Andes, nearly parallel to each other, traverse Peru from south to north; the first, or the Great Cordillera, may be considered as the central chain; the other, which is much lower, lies nearer the sea, and is called the Cordillera of the coast. Lower Peru is situated between it and the ocean, and forms an inclined plane from ten to twenty leagues in breadth, to which the Spaniards have given the name of Valles. It is partly composed of sandy deserts, destitute alike of vegetation and inhabitants. Its sterility proceeds from the excessive dryness of the soil; neither rain nor thunder has ever been observed in this part of Peru.^a The only fertile lands are those that are situated on the banks of rivers, and such as are capable of being artificially watered, or are moistened by subterraneous springs.^b These privileged places display the united beauties of spring and autumn. The climate is remarkable for its mildness; in Lima the thermometer has never been seen below 69° F. at noon, and seldom above 86°. In the course of one summer, it is said to have risen to 96°, but this is the greatest height that has ever been remembered.^c The coolness that pervades the coast of this tropical region, cannot be attributed to the snow covered mountains in its vicinity, but is rather the effect of a thick mist, called by the natives *garua*, which covers the disk of the sun, and partly owing to a cold current of sea-water, that flows in a northerly direction from the straits of Magellan to the Cape of Parinna. Humboldt remarks, that the difference between the ordinary temperature of the ocean in these latitudes, and that of the current, amounts at least to nine degrees.^d

The Sierra, or the country between the two chains of the Cordilleras, consists of mountains and naked rocks,

^a "It neither rains nor thunders in this part of Peru."—M.B. "In this district no rain falls, but the dews are heavy and regular. Hurricanes, thunder, and lightning, are little known."—*Ed. Encyc.* "In the lower part of Peru rain is almost unknown; nay, it is asserted, that in the part between 5° and 15°, rain has never been known to fall. Bouguer observes, that from the Gulf of Guayaquil to the desert of Atacama, rain is unknown."—*Pinkerton*.—P.

^b *Viajero Universal*, XIV. 106.

intersected by some fertile and well-cultivated valleys. This region contains the finest silver mines in the world, and the best veins are commonly found in the most sterile rocks. Were we to form an opinion of climates from what has been said concerning the longevity of their inhabitants, that of the Sierra must be considered one of the most salubrious. Some writers have described, under different names, the Sierra and the highest chain of the Andes, or the region of perpetual congelation; but it appears to us better to include both these countries under the general appellation of Upper Peru.

Beyond the principal chain of the Andes, an immense plain extends in an easterly direction towards the banks of the Ucayal and Maranon; it is traversed by several chains of mountains, to which the Peruvians have given the name of *Montaña Real*. In this rainy country, the traveller is charmed with the beautiful verdure of its forests; but his journey is frequently interrupted by inundations, marshes, noxious reptiles, and innumerable insects. This tract may be properly called Interior Peru;† it is more difficult of access than the other districts.

It must be evident, from the preceding observations, that many parts of Peru are but ill adapted for the purposes of agriculture, and that it could hardly become powerful or rich from its vegetable productions. It is but thinly peopled, and its inhabitants are dispersed over a vast extent of territory. The conveyance of heavy goods is rendered very difficult, from the great deficiency of roads, bridges, and canals. There is scarcely a way in the country by which a wagon or any sort of carriage can move with safety; and every kind of merchandise is carried by mules.

So long as Peru continued a Spanish colony, this circumstance contributed greatly to retard its industry; it was impossible to convey those goods which the soil might produce, if their commerce were encouraged. The passage across the isthmus, by Porto Bello and Panama, has been abandoned on account of the expenses of transportation being greater than the profits derived from the trade itself. That of Cape Horn is not exempt from danger, and tempests render it frequently uncertain. The Rio de la Plata and Buenos Ayres afford the only convenient passage;‡ but the want of roads and navigable rivers prevents the products of Upper Peru from reaching the basin of the Parana. Nature seems to have supplied this defect; the

^c "The hottest day ever known at Lima was in Feb. 1791, when the thermometer rose to 96°."—*Ed. Encyc.*—P.

^d A. de Humboldt, *Tableaux de la Nature*, I. 126.

^e "On the coast of Peru, the temperature of the ocean [within the current] is 12.5° (cent.) out of the current 21°."—M.B.

^f *Viajero Universal*, XX. p. 193, 194.

^g That is, within the Spanish territories; that by the Amazon being in the possession of the Portuguese.—P.

Amazon might receive the cloths of Quito by the Pastara ; the cinchona of Caxamarca by the Maranon ; the oil of Lima by the Huallaga or the Ucayal ; the sugar of Cuzco, and the gold of Carabaya, by the Apurimac ; and the linen of Moxos, by the Beni. San Joachin d'Omaguas might at no distant period become the Tyre or the Alexandria of Peru. A vessel from that place may arrive at Cadiz in less than two months and a half ; but the policy of European governments prevented the Spaniards from using such advantages, and Portugal never suffered their flag to be seen on the waters of the Amazon. This circumstance might not have been a great obstacle to a prince like Charles the Fifth, or it might have yielded to the sword of another Pizarro ; but at all events, the two countries never discovered the great benefit that each of them might derive from sharing the navigation of the Amazon and the Parana.

Until this commercial revolution take place, the fragrant gums, the medicinal resins, and precious wood of the Peruvian forests, the nutmeg and cinnamon which are said to be found in the *Montaña Real*, the oil of Lower Peru, the coffee and sugar cultivated with success in the temperate districts of the Sierra, the cacao from the plains in the interior, the cotton of Chillaos, the silk of Mojobamba, and the flax and hemp of Moxos, will never repay the planter who cultivates them for the European market ; for the expense of a land carriage to the coast, and that of transporting them by sea, are greater than the value of these articles in Europe. The court of Madrid offered every encouragement for the exportation of Peruvian wool ; but it is dearer at Cadiz than the finest from Segovia. The wool of the alpaco might be exported with profit, and that of the vicuna could be advantageously disposed of on account of its rarity and superior quality, but the hunters have nearly exterminated the animal that produces it.^a The bark trade has been successfully carried on, but husbandry has continued in such a languishing state in Peru, that Lima, and several other cities on the coast, have imported their provisions from Chili.^b The earthquake in 1693 rendered the valleys of Lower Peru so barren, that the people gave up cultivating them in several places, and although the country has since that time recovered its fertility, agriculture has been neglected.^c

The soil of Peru abounds in precious metals ; gold is not the one that is most eagerly sought after, for it is concealed in places that are almost inaccessible, or found in ores of so great hardness, that they cannot be easily fused. A projecting portion of mount Himani gave way near La Paz, and pieces of gold were detached from it, which weighed from two to fifty lbs. Although more than a hundred years have elapsed since that event took place, it is said that the inhabitants of the town still find occasionally small fragments of gold.^d

But the richest mines are ill worked, and often abandoned from trivial causes ; and the quicksilver necessary in separating the metal from the ore is not obtained in sufficient quantities. Gold was formerly found by the Incas in the plains of Curimayo, north-east of Caxamarca. It has also been taken from the right bank of the Rio de Miquipampa, between the Cerro de San Yose, and Choro-

pampa, or the plain of shells. The Peruvian gold is obtained at present at Pataz and Huilies in Tarma, and from some veins of quartz traversing primitive rocks ; there are besides, gold washings on the banks of the Maranon Alto, and on many of the rapid mountain torrents. But such washings, like those in Brazil, are found in most instances to yield a less return for labour than the common operations of husbandry, and several of them have been given up on that account. The quantity of gold coined in the royal mint of Lima between the years 1791 and 1801, amounted to three thousand four hundred and fifty marcs Spanish.^e

The most valuable silver mines are those of Pasco near Lauricocha, in the Cerro de Bombon, or high table land. They were discovered by Huari Capac, an Indian, in the year 1630 ; and it is supposed that they furnish annually about two millions of dollars. Their elevation is more than thirteen thousand feet above the level of the sea, and the metallic bed appears near the surface. Mr. Bonnycastle thinks that if these mines were worked by steam, they might produce as much as those of Guanaxuato^f in Mexico. The mines of Chota were discovered in 1771 by Don Rodriguez de Ocan, a Spaniard, but the Peruvians worked, in the time of the Incas, some silver veins near Menipampa. Immense wealth has been obtained at Fuentestiana, Comolache, and Pampa de Navar ; in the last of these places, there is a space of ground more than half a square league in extent, from which if the turf be taken up, sulphuretted and native silver are found in filaments, adhering to the roots of the grasses. The silver that is sent yearly to the provincial treasury of Truxillo, in the district of Chota, has been estimated at 44,095 lbs. The mines of Huantajaya are surrounded with beds of rock-salt, and are remarkable for the quantity of native silver contained in them ; two pieces were found in these mines, one of which weighed two, and the other eight hundred weight.^g

Mexico imports its mercury from Europe, but it is procured in Guancavelica, a district of Peru, at no great distance to the south-east of Lima. Quicksilver was discovered there by the Spaniards for the first time in the year 1567. The matrix that contains it is an argillaceous schistus of a pale red colour. Tin, according to Helm, is found at Chayanza and Paryas ; there are also several mines of copper and lead. The principal mine of copper is at Aroa, but the colonies were principally supplied with that metal from Chili. Galinazo, so named from its black colour, is a volcanic vitrification, sometimes confounded with what the natives call the mirror of the Incas, a mistake that originated probably from both these minerals being used as mirrors.

In the time of the Incas, emeralds were very common, particularly on the coast of Manta, and in the government of Atacames ; there is still a popular tradition in these districts concerning the existence of emerald mines, which the Indians do not choose to make known, lest they should be condemned to the painful labour of working them ; for experience has shown, that neither Europeans nor Negroes can support the cold and damp air of the Peruvian mines. A few roots and vegetables furnish but a wretched

^a Viajero Universal, XXII. p. 233.

^b Large quantities of flour have also been exported from the United States to Peru, since it has established its independence.—P.

^c Mercurio Peruano, I. 213. III. 4. VIII. 58. X. 239.

^d "Of the weight of an ounce."—M.B.

^e Bonnycastle's New Spain, vol. II. p. 81.

^f Ibid. vol. II. p. 79.

^g Ibid.

subsistence to the miner, and these are the only productions that are found in the deserts wherein nature has concealed her treasures.

Three different classes of people shared formerly the profits derived from working the mines. Those of the first class were called *especuladores*, and many among them were practical miners; the *habilitadores*, or creditors, formed the second; and the third class were termed *rescatari*, (*rescatadores*) or purchasers. In Mexico, the traders of the first class were generally rich proprietors, who could afford to lay out a considerable capital without receiving any return for a length of time; by this means they obtained all the advantages of a speculation in the event of its success. But in Peru, the speculators were mostly men of embarrassed circumstances, who, to enable themselves to begin their undertakings, were forced to borrow at great interest. In order to continue their works, they were obliged to sell the produce of their mines too quickly, and at a low rate. The creditors furnished the necessary advances on usurious and unjust conditions; for the miner received only one half of his fund in money, the other consisted of merchandise, which was always overvalued, and frequently of little use to him. In the next place, he entered into an obligation to pay his debt within a very limited time. The creditor received payment in *pina* or silver not fused, but separated from the mercury, with which it had been amalgamated; and in these contracts *pina* was estimated at one sixth or more under its real value. The *rescatador* gave money to the miner in exchange for his *pina*; in poor and remote mines, whenever the miner required money, which he did very often, to pay his workmen, and to purchase mercury and other necessary materials, he had to sell his *pina* to one of these traders at any price he might choose to give for it. These grievances excited at last the attention of the mother country, and, in 1786, on the establishment of the royal tribunal of mines, offices were established at the principal mines, where the *pina* was purchased at a reasonable price, and the miners thus secured from extortion. These offices were also very useful in another respect, for they supplied the miners with small quantities of quicksilver as often as they required them. The profits of the purchasers diminished so much in consequence of these alterations, that a great proportion of the capital employed in their trade was applied in furnishing the necessary advances for opening and working mines. This augmentation of funds, at the same time that it reduced the gains of the creditors, relieved the hardships of the miners, and their labours were carried on with more activity and better success. It is stated as an additional proof of the many advantages which resulted from this measure, that bankruptcies did not occur so frequently after it was put in force, so that all classes must have gained by the change.^a

The exports of Peru consisted chiefly of gold, silver, wine, brandy, sugar, pimento, cinchona, salt, vicuna wool, coarse woollen goods, and other manufactures of less value. Its imports from Europe were linen, cotton, silk, iron, hardware, cloth, and mercury. From the other provinces it received indigo, tallow, cacao, timber, cordage, pitch, and copper; a great quantity of fruit and grain was

also sent annually from Chili to Lima. The trade of Peru passed by the straits of Magellan to Europe, by sea to India and other colonies on the Pacific, and through the interior, to the provinces of Buenos Ayres. The yearly exports of the vice-royalty of Peru to Potosi, and the other provinces of Rio de la Plata, were estimated at more than two millions of dollars, (*piastres*.) and its imports at eight hundred and sixty thousand, so that the balance in favour of Peru amounted to about one million one hundred and forty thousand dollars, (*piastres*.) independently of the profits which the Peruvian muleteers derived from the carriage of goods. The commercial routes pass by Cuzco and Arequipa; and the principal exports were maize, sugar, brandy, wine, pimento, indigo, and woollens. The quantity of brandy sold yearly, was supposed to be worth nearly a million of dollars (*piastres*.) The greater part of the woollens were manufactured in Peru, and the rest brought from Quito. The indigo was obtained from Guatemala. The returns from Rio de la Plata consisted of mules, sheep, hams, tallow, wool, Paraguay tea, and a small quantity of tin. Twenty thousand mules were imported every year from Tucuman, for the service of the mines.^b Peru received annually from the Philippine islands, muslins, tea, and other East Indian goods, in exchange for 2,790,000 dollars exported to Asia in silver and gold.

The maritime commerce of Peru occupied at one time a considerable number of trading vessels.^c The exports sent to Chili were European goods brought in the first instance to the port of Callao, coarse woollens, manufactured in Peru, indigo, from Guatemala, sugar, salt, cotton, and other articles of less importance. It received in return, besides the imports already mentioned, a great many negro slaves, some of whom had been brought to Chili from Rio Janeiro and Buenos Ayres. Part of the copper obtained from that province was used at the mint in Lima, but the greater proportion was sent into Spain.^d The sea-ports in Chili, by means of which this commerce was carried on, were Valparaiso, Concepcion, and Coquimbo; but the trade of the first town was much greater than that of both the others. Three fourths of the exports to Guayaquil were European goods, the remainder consisted of flour, wine, brandy, and copper; the imports, on the other hand, were chiefly cacao and timber, besides a considerable quantity of tobacco, purchased on account of government, and re-exported to Chili.^e Panama at one time engrossed all the commerce of Peru; but its trade became of late years insignificant, or rather confined to a small exportation of cacao and timber, and to the remains of a disgraceful traffic in slaves. The exports from Peru to Panama were coarse woollens, sugar, flour, and brandy. Three hundred thousand dollars (*piastres*) were sent annually from Lima to defray the expenses of the garrison, and the civil administration of the province. The principal article of importation from Guatemala was indigo, but a small quantity of cacao, dye-wood, and timber, were obtained from the same district; the exports from Peru to that place consisted chiefly of wine and woollens. It might have been profitable to have sent the Peruvian wines and spirits to San Blas, and in this way to have carried on a trade with Cinaloa, Sonora, and California; but that was prohibited by the Spanish go-

^a Mercurio Peruano, VII. 25; VIII. 2. et seq.

^b Mercurio Peruano, I. 230.

^c "In the maritime trade with the other colonies, forty-one vessels were employed, whose united tonnage amounted to 351,500 quintals, and which were manned by 1460 seamen."—M.B.—*Ed. Encyc.*—P.

^d "Part of the copper from Chili was employed in the mint at Lima; the remainder was sent to Spain, with the exception of a small quantity sent to Guayaquil."—M.B.—P.

^e Bonnycastle, New Spain, vol. II. p. 78.

vernment, lest it should injure the commerce of the mother country in the same articles. The trade between Peru and Spain passed by Porto Bello and Panama until the year 1748; at that period registered vessels were substituted for galleons, and the passage by Cape Horn was preferred to the former more difficult route. The first Spanish vessels that doubled the Cape were insured at Cadiz for a premium of twenty per cent, but that exorbitant rate of interest diminished gradually to less than two per cent.^{a b} After the peace of 1783, Spain put into practice a system of free trade with her colonies, which had been before approved of in theory by the ministry in Madrid. A free communication was thus opened between certain seaports in Spain, and the privileged ports of Callao and Arica in Peru. That change proved very favourable to the Peruvians; for they were enabled to enjoy the productions and luxuries of Europe at a more moderate price, their industry was encouraged, their exports increased, and the produce of their mines nearly doubled. The change too was not less beneficial to the mother country. For a period of twenty-five years, from 1714 to 1739, all the exports which Spain received directly from Peru, Chili, Rio de la Plata, and Santa Fé, did not exceed thirty-four millions of dollars, (*piastres*;) but since the removal of restrictions, those of Peru and Chili alone have amounted annually to six millions. The imports from Europe increased in the same proportion.^c

In another part of this work we shall give a general outline of the political and commercial systems of the Spanish colonies, in which it will be seen that from an annual revenue of 6,200,000 dollars, (*piastres*;) levied in Peru, and the provinces of Charcas, only 500,000 reached the Spanish treasury.

Lima, the capital of Peru, is situated in the broad and fruitful plain of Rimac, from which the word Lima was derived. That town, founded by Pizarro, on the 15th of January, 1535, was originally called Ciudad de los Reyes. The name of the valley was taken from an idol of the Peruvians, which was denominated, by way of distinction, Rimac, or he who speaks. Lima became in time the chief town in the diocese of a metropolitan, whose rental was fixed at thirty thousand dollars.

The situation of the city has been much admired; it commands a view of the whole plain wherein it is placed, a river^d flows beneath its walls, and the prospect is bounded by the Andes. At the end of a bridge there is a gate of good architecture, that leads into a spacious square, the largest and best built of any in Lima. The form of the city is triangular, and its base stretches along the banks of the river to the distance of two miles. The whole of the town is surrounded with a brick-wall, flanked by thirty-four bastions. The streets, which are broad and regular, cross each other at right angles; they are well paved, and the drains being supplied from the river, render the town very clean.^e There are not less than three hundred and fifty-five streets in Lima. The houses of the wealthy have gardens attached to them, which are watered by the canals

that run through the city. Besides a great many churches, convents, and hospitals, there is also a fine university that was founded in 1576. Lima was the residence of the viceroys of Peru; their courts, the different tribunals, and the mint, afforded employment to a great many persons, and the town became as flourishing as any in South America. The prison, the archbishop's palace, the council house, and cathedral, formed the greater part of the large square.^{f g} The theatre is a neat building, but acting is as yet in its infancy. There were no coffee houses in Lima before the year 1771; although these places of amusement have much increased, bull-fights and gambling are still the chief diversions of the populace. The higher classes are not free from superstition, and its attendant vices, and their example has had a baleful effect on the morals of the lower orders. The inhabitants of Lima were formerly computed at 53,000 souls;^h of these the monks and priests amounted to 1,390, the nuns to 1,580; the Spaniards, or colonists of Spanish extraction, to 17,200; the Indians and Negroes to 12,200; the rest were composed of Mestizoes and other castes.ⁱ

Earthquakes are not uncommon in Lima: the one that happened in 1786, was perhaps the most destructive of any that has ever been remembered. It began on the evening of the 28th of October, and lasted for several weeks. The city was almost destroyed, and many of the inhabitants lost their lives. The port of Callao was completely demolished; twenty-four vessels were sunk, and the fragments of three others were thrown by the rise of the waves beyond the beach. Out of four thousand persons in Callao, two hundred only escaped; one thousand three hundred individuals perished in Lima, and a great many others were maimed or wounded.

Cuzco, formerly the capital of the empire of the Incas, and since that time the chief town in an intendancy of the same name, is about a hundred and eighty-four leagues from Lima. Although it contains only 32,000 inhabitants, of whom three-fourths are Indians, it is in extent nearly equal to Lima, and retains still several monuments of ancient splendour; of these, the fortress of the Incas is not the least remarkable. The stones in that building are so immense, of so irregular a shape, and at the same time so well joined together, that we are at a loss to imagine how they could have been united even by skilful architects, and much more so by a people unacquainted with the use of machinery. Most of the houses are built of stone, and many of them are large and richly decorated. Churches and convents are the most conspicuous of the public buildings; the Dominican monastery occupies the site of the temple of the Sun; it is said that its walls are those of that ancient edifice, and that the altar stands on the very place where the golden image of the bright orb was formerly adored. The residence of the virgins of the sun has been converted into a dwelling for the nuns of Cuzco.^k During the time of the Spaniards, the principal ecclesiastical courts were the inquisition and cruzada. The bishop of Cuzco, as suffragan to the archbishop of Lima, pos-

north side by the viceroy's palace, the west side by the town-house and city prison, and the south side by private houses, with fronts of stone, adorned with porticos.—*Ed. Encyc.*—P.

^h *Viajero Universal*, XX. 163.

ⁱ Population, 52,627: monks and clergy, 1392; nuns, 1585; Spaniards and Spanish colonists, 17,215; Indians, 3219; negroes, 8960; remainder mixed.—*Mercurio Peruano*.—Pinkerton.—P.

^k "A nunnery now stands on the situation where lived the virgins of the sun."—*Pinkerton*.—M.B.

^a "They are now insured for two per cent."—M.B.

^b *Mercurio Peruano*, I. 247.

^c *Ibid.* I. 246.

^d The Rimac.

^e "They are furnished with streams of water from the river, which are arched over, and rendered subservient to cleanliness and many other conveniences."—*Ed. Encyc.*—P.

^f *Bonnycastle*, New Spain, Vol. II. p. 115.

^g The east side is occupied by the cathedral and archbishop's palace, the

essed an annual income of 24,000 dollars. The trade of the town consisted in sugar, cotton, cloth, and leather; the inhabitants have made of late years some proficiency in the art of printing.

Piura is situated in that part of Peru which extends along the coast of the Great Ocean; it is the first city that was built by the Spaniards after their arrival in the new world. A small river near the town fertilizes the soil through which it flows, although its streams disappear entirely in the dry season. The population of Piura has not been ascertained; Mr. Bonnycastle fixes it at seven thousand souls; but other writers maintain, that it is more than double that number.^a The adjacent country abounds in wood, and produces cotton, sugar, and maize.

Truxillo was the capital of an intendency of the same name, and its jurisdiction extended sixty miles along the coast, and as far into the interior. The fertile plains in this district are covered with sugar-canes and vineyards; wheat and different kinds of grain have been cultivated with so much success in that part of it near the Andes, that the inhabitants export these articles to Panama. The town was built in 1535 by Pizarro, who gave it the name of his native city. It is about a mile and a half from the sea, and in its neighbourhood are still extant the ruins of several Peruvian monuments that were sacked by the earlier settlers. The present population is composed of Spaniards, Indians, mestizoes, and mulattoes.

The seaport of Canete derived its wealth and splendour from the trade which it carried on with the capital. Chiloa, a small town about thirty miles distant from Lima, is chiefly remarkable for the great quantity of saltpetre that is found in its vicinity. Ica, or Valverde, contains about six thousand inhabitants; it is the chief town in a fruitful district, from which wine and brandy are exported to Guamanga, Callao, Guayaquil, and Panama. Its olive plantations are extensive, and famed for the good oil that they produce; the fruit of the carob tree is so common, that it is given to cattle.

Arica, the most southerly district in the intendency of Arequipa, consists of sandy deserts, and some cultivated plains, in which the vine has rapidly increased. Thus the gold and rich silver mines in that part of the country have not prevented the inhabitants from bestowing a portion of their labour on the more useful occupations of husbandry, and in this respect they are entitled to our praise, for little attention is bestowed on agriculture in the provinces that contain the precious metals. The commerce of La Paz, Oruro, Charcas, and Potosi, lately appendages of the viceroyalty of Buenos Ayres, passed by the port of Arica, and communicated by this means with the Great Ocean. But Arica is at present an inconsiderable town; it was much injured by an earthquake in 1605, and still more so from being pillaged by the English in 1680. Since that time most of the inhabitants have removed to Tacna, a place in which they were induced to settle on account of the great salubrity of its climate. The distance from Tacna to Arica is about thirty-six English miles.

The towns of Upper Peru are in some respects more remarkable than those already noticed. At Caxamarca, in the intendency of Truxillo, are seen the remains of the

palace of the unfortunate Inca,^b who was strangled by order of Pizarro; the ruins of the building are still inhabited by a poor family,^c that claims the honour of being lineally descended from the Incas. The population of Caxamarca exceeds twelve thousand souls; the town is situated in the midst of a valley, as much renowned for the excellence of its climate as for the abundance and variety of its productions. The famous hot springs, called the baths of the Incas, are about a league from the city. The inhabitants manufacture linen, cotton, and coarse woollen goods, the raw materials of which are obtained in the district. As many parts of the country are much more elevated than others, different climates and productions have been observed within a small extent of territory. Among the secondary towns we may mention Chacapoyas, or Juan de la Frontera, the capital of a romantic district on the eastern declivity of the Andes. Huanuco consists of a few large and isolated houses, the greater number of which are at present uninhabited. Pasco is one of the principal towns in the province of Tarma, a wild and barren country in the plain of Bombon. But the town, though disadvantageously situated, is populous, and considered one of the most important places in Peru, from its vicinity to the famous silver mines of Lauricocha. *Atanjanja* is the largest town in the valley of Jauja; it has become important from its communication with Pasco, and from the facility with which provisions may be sent from it to the mines. Guancavelica is about thirty miles from Guamanga; it was founded by the viceroy Toledo in the year 1572. The climate is cold and variable; rain and snow fall frequently in the same day. The houses are mostly built of tufa, which is obtained from a warm spring in the neighbourhood. The inhabitants earned a subsistence by working the quicksilver mines of Santa Barbara. The elevation of the town is more than 12,308 feet^d above the level of the sea, and the height of Santa Barbara is 14,506 feet. The population of Guancavelica is now less than 5200 souls; its decay commenced after the mines in its vicinity were neglected. The townsmen obtain materials for building their houses in the following manner: The water of a warm spring is cooled, and the calcareous matter held in solution falls to the bottom of the vessel during the process; the sediment is then put into vases, and assumes gradually the hardness and consistence of stone.

Guamanga, a town of twenty-six thousand inhabitants, was the residence of an intendant, and the seat of a university; the houses are built of freestone, and the central situation of the town between Lima and Cuzco might render it still more flourishing, were it not for the unhealthiness of its climate.^e The finest sugar in Peru is produced in the district of Calca y Lares. The cane is of a very rich quality, and lasts for several years without culture. Alcedo^f asserts, that it ripens at the end of fourteen months; but that author is often inaccurate in his statements, and other writers have taken no notice of so extraordinary a fact. The district of Canes y Canches derives its name from two tribes, the remains of which still exist. They were governed by independent princes or *curacas*, until the Incas forced them to submit. The inhabitants of Condorama, and other parts of this district, are greatly in-

^a 15,000.—M.B.

^b Atahualpa.

^c The Astorpilcos.

"2150 toises."

^e "Its central situation between Lima and Cuzco adds to its importance, and would, perhaps, render it the capital of the country, were it not for the coldness of the climate."—M.B.—P.

^f Alcedo, Diccionario, article Calcas-y-Lares.

commoded during thunder-storms; their hands and faces appear as if stung by insects; and as these sensations are only experienced on such occasions, it is probable that they are produced by the air in a high state of electricity.^{a,b}

Arequipa, the capital of an intendancy, is situated in the district of Arequipa Proper; it is about two hundred and seventeen leagues south-east of Lima, sixty south-west of Cuzco, and fifty north of Arica. Pizarro marked out a place for the town, but repeated earthquakes, and the inconvenience arising from its being so near the volcano of Guayna Putena, forced the inhabitants to leave it, and to remove to their present site. Arequipa is a large and well-built city, watered by the river Chile, and its population exceeds 24,000 souls. The word Arequipa signifies, in the Peruvian language, to remain;^c and the reason that that name was given to the district has been thus accounted for; the troops of the Inca, who conquered the country, became so fond of it, that they intreated their leader to allow them to pass there the remainder of their lives; the Inca granted their request, and they called the territory Arequipa, to commemorate the event.

The lake of Chucuito or Titicaca, in the audience of Charcas, which has been lately dismembered from Upper Peru,^d is situated between two of the Cordilleras, and enclosed by the surrounding mountains; it has no other outlet than the Desaguadero, which flows from it into lake Paria, and is there lost. Its circumference is about two hundred and forty miles; and in many places it is more than four hundred and eighty feet in depth.^e The violent storms that rush from the Andes render it dangerous for ships; its waters are bitter, but it abounds with fish, and flocks of wild fowl haunt its shores. The lake has been called Titicaca, or the leaden mountain, from one of its numerous islands, on which the natives believed that Manco Capac received his divine commission to be the legislator of Peru. The island for that reason was held in great veneration, and the succeeding Incas erected there a magnificent temple to the sun. As every Peruvian was obliged to visit that building, and to lay an offering at its shrine, the quantity of gold and silver contained in it was very great; when the country was conquered by the Spaniards, the natives, to hinder them from taking possession of the temple, razed its walls, and threw all its wealth into the lake.

Near the southern extremity, the banks approach each other, and form a bay, which terminates in the Rio Desaguadero, or drain. A bridge of rushes was built over it by Yupanqui Capac, the fifth Inca, to enable his army to cross the Desaguadero, which is about eighty yards wide, and flows with an impetuous under current. The Inca caused four large cables to be made of the long grass which grows on the high Paramos, or deserts of the Andes, two of these having been stretched across the stream, rushes firmly fastened together were laid over them; two more cables were placed on this foundation, and covered with flags smaller than the former, but secured in such a way as to form an even surface. By this means the Peru-

vian army advanced to the conquest of Charcas. The bridge was five yards broad, and nearly two higher than the river; it was repaired every six months, in pursuance of a law made by the Incas, and, on account of its great utility, adopted by the Spanish government.

La Plata, or Chuquisaca, the capital of Charcas, received its first name from a silver mine in mount Porco; this town, the population of which has been calculated at fifteen thousand souls, is built on one of the branches of the Pilcomayo. It was erected into a bishopric in the year 1551, and raised afterwards, in 1608, to a metropolitan city. La Plata was founded by Pedro Auzures on the site of an ancient Indian town; the great inconvenience of its situation arises from a scarcity of water; the public fountains are not only at a great distance from each other, but very often ill supplied. Before the late revolution in Spanish America, it was the seat of the royal audience of Charcas. La Paz, sometimes called Pueblo Nuevo, is the chief town in the small district of La Paz. It was built by Capac Mayta, the Inca who subdued the country. Illimani, or the summit of an adjacent Cordillera, is covered with perpetual snow; on the high grounds the climate is cold and variable, but that of the city is mild and salubrious. The heights near which the town is built, its river, its snowy mountains, and fertile valleys, add to the beauties of the scenery around it. The plains in this district are the only places that are inhabited; the hills are covered with impenetrable forests. When the river is swollen by the rains or melting of snow, large masses of rock, impregnated with gold, are sometimes detached from the mountain.^f The population of the town amounts to 20,000 souls; its trade consists chiefly in Paraguay tea.

Potosi, the most considerable town in the audience of Charcas, is built on the southern declivity of the Cerro de Potosi. There is a tradition that Diego Hualea, an Indian peasant, was pursuing a vicuna on this mountain; to prevent himself from falling, he took hold of a shrub, and when it was torn from the ground, the astonished hunter observed a large mass of silver, part of which adhered to the roots of the plant. A slave, to whom he had intrusted the secret of his good fortune, betrayed him, and the mine was opened on the 21st of April, 1545. The population of the town increased so rapidly after its mines were made known, that it amounted, in the year 1611, to 160,000 persons; but from various causes, the number of inhabitants has since that time decreased greatly, and it does not contain, at present, more than 30,000 souls.^g

Oropesa is situated in the province of Cochabamba, a district frequently called, from its great fertility, the granary of Peru. Tarija is the capital of Chicas, a province abounding in grain, fruits, and wine. Atacama is a small town in a province of the same name, which borders with Arica on the north, and Chili on the south. The maritime part of the district is a dreary wilderness, but in the interior, which is not unfruitful, there are some valuable mines. Santa Cruz de la Sierra, a considerable town, and the capital of a very large province of the same name,

^a Alcedo, Diccionario, article Canes y Canches. Viajero Universal, XIV. p. 185.

^b "In this district, in the neighbourhood of Condorama, the inhabitants experience a prickling sensation during thunder storms, which they call the *fies*. This is undoubtedly owing to the electric state of the air, for it ceases as soon as the storm is over."—(Alcedo.)—M.B.

^c Or rather, *remain here*, the reply of the Inca to the request of his troops.—P.

^d In 1778, on the establishment of the viceroyalty of La Plata.—P.

^e "Its depth is from 70 to 80 fathoms."—M.B.

^f When the river is swollen by the rains or the melting of the snow, it detaches large masses of rock; and brings down grains of gold, which are gathered when the waters have subsided.—M.B.—P.

^g "Authors are not agreed on the population of Potosi. Some authors put it at 30,000; Helm at 100,000."—M.B.—P.

built in a small district in the midst of a great many hills ; the sandy plains in the province of Chiquitos extend beyond them, and join to the north the woody plains in the province of Moxos.

The history of the Peruvians has been vaguely preserved by oral tradition and uncertain symbols ;^a upon the whole, it is much more obscure than that of Mexico, and little is known of the natives previous to two or three centuries before the discovery of America by Columbus ; for the reigns of twelve Incas can hardly be supposed to include a greater period.^b

The Peruvians, like other savages, wandered from province to province, and gained a subsistence by hunting or fishing. After their combats, the victors tore asunder the limbs and arms of the conquered. Their superstition made them worship different objects ; the mountains as the sources of streams ; the rivers and fountains for having watered and fertilized the soil ; the tree that furnished them with fire wood, and the animal that had been slaughtered to satisfy their hunger. The ocean, too, was expressively called the mother of fishes ;^c but their devotion was the effect of terror rather than of gratitude. The most of their deities were frightful and unseemly ; altars were erected to tigers and serpents ; sacrifices were offered to the gods that ruled whirlwinds and storms.^d A volcano excited still greater veneration, as it indicated the existence of an enemy, whose dreadful influence extended to the lowest regions of the earth. An African has been known to sacrifice himself before his idol, and many Peruvians destroyed their children to avert the wrath of malignant deities. National vanity, too, heightened the superstition of the Americans. The natives of Cuba, Quivala, and Taema, proud of imagining that they were descended from the lion, which their ancestors worshipped, dressed themselves in the spoils of their god, and strove with each other to imitate his fierceness. The inhabitants of Sulla, Vilca, Hanco, and Urimarca, boasted of being sprung from a mountain, a cavern, a lake, or a river, to which they had been accustomed to sacrifice their children.^e

Divine providence, it is said, in compassion to a world delivered over to an evil genius, sent at last the wise and virtuous Manco Capac, and the beautiful Oello, his sister and his wife. The nativity of that excellent pair is unknown, but it was generally supposed that they came down from heaven, to increase the happiness of the human race. He taught men to till the ground, and to change the course of rivers, for the purpose of watering their fields. Oello enjoined women to educate their children, and obey their husbands. As the founder of a new religion, Manco Capac instructed his followers to worship the sun ; he thought that gratitude was admirably adapted for diffusing the happiness and promoting the welfare of a nation, and he made laws to enforce it among his people. By his humanity, wandering savages were made to love and assist each other ; they built themselves houses, and overturned their bloody altars. The earth, cultivated by its inhabitants, opened its fruitful bosom, and was covered with

golden harvests. He fixed the division of lands, enjoined every man to bestow a portion of his time and industry for the benefit of his neighbour, and inculcated brotherly love among the members of different families ; but, at the same time, he compelled his subjects to submit to the will of the Incas, and retarded the progress of genius, by making it unlawful for a son to follow any profession different from his father's. The despotism of his successors became excessive ; subjects, or more properly slaves, were only permitted to approach them with offerings in their hands ; and the inhabitants of a whole province have been destroyed to gratify the cruelty of a single individual. If the moral improvement of a people be connected with their civil rights, the Peruvians had to struggle against many disadvantages ; their wrongs were seldom redressed, and the worst sort of superstition was encouraged by their rulers. After the death of an Inca, many human beings were sacrificed at his tomb.

One law may serve to illustrate the nature of their government. If it were discovered that a priestess of the sun had broken her oath of chastity, she was buried alive ; her seducer suffered the most cruel torments ; even their families were thought to have participated in the crime ; father, mother, brothers and sisters, were thrown into the flames, and a boundary drawn round the birth place of the two lovers, marked it out as a desert for ever. The Incas seldom forgave an injury ; it was customary for them to mutilate the faces and limbs of all the individuals taken in a revolted district. From such institutions the national character of the people was formed ; and if their government possessed any advantages, these were completely destroyed by its obvious defects.

Whatever may have been the character of the Peruvians, numerous remains of their ancient civilization are still observable. The length of the road from Quito to Cuzco, and beyond it, was nearly fifteen hundred miles ;^f there was another of the same distance in the lower part of the country, and several extended from the centre to the remotest parts of the empire. Mounds of earth, and other works, rendered the ascent of hills comparatively easy.^g Granaries were built at certain distances, and charitable houses founded by the Incas were ever open to the weary traveller. Temples, fortresses, and canals, varied and improved the aspect of the country. But the great quantity of gold excited more than any thing else the wonder of the first settlers. Some ancient monuments were adorned with as much of that metal, as amounted in value to several millions of dollars.^h Trees and shrubs of gold fantastically formed, were placed in the imperial gardens at Cuzco. Garcilasso takes notice of funeral piles consisting of golden billets, and granaries filled with gold dust ; but these fables, it is probable, might have been invented at that period by the Spaniards for advancing their political purposes.

Were we to judge of the Peruvians from the lively descriptions given by Marmontel, we should form a wrong estimate of their character. They are ignorant and sloth-

^a "The symbolical knots called *quipos*."

^b "The reigns of twelve Incas could scarcely have had a common duration of more than 20 years."—M.B. Alcedo enumerates 15 Incas from Manco Capac to Atahualpa, inclusive. These, at an average reign of 20 years, give 300 years for the duration of the monarchy.—*Pinkerton*.—P.

^c *Mama Cocha*, mother sea.

^d "They worshipped the cougar, the jaguar, the condor, and great ser-

pents ; storms, winds, thunder, caverns, and precipices ; torrents, dark forests, and volcanoes.—M.B.

^e Garcilasso, book I. chapter 2.

^f "500 leagues."

^g "Embankments of 40 feet in breadth filled up the valleys to a level with the hills."—M.B.

^h "Millions of piastres have been found at different times in some of the ancient monuments."—M.B.

ful, and oppression has made them sullen and dejected. Fearful of danger, and at the same time unwilling to forgive an enemy, they are servile, cruel, and revengeful. Their dread of their masters renders them docile and submissive to the Spaniards, but the hard usage which they have experienced, has made them consider the good offices of benefactors as so many pretexts to deceive them. Although strong, and able to endure great fatigue, they live in indolence, and think only of providing for their immediate wants. Their food is of the coarsest sort, and their dress squalid and wretched. They are besides so much addicted to drunkenness, that it is common for them to part with whatever they possess to indulge in that vice. Their religion is strongly tainted with their former superstition, but they are rigid observers of the rites and ceremonies of the Romish Church, and they frequently expend large sums in masses and processions.

The system lately adopted by the Spaniards in governing the Indians, was calculated to improve them. They were no longer subject to the control of the Spanish corregidores. If their indolence and effeminacy were rather increased in some provinces during the authority of their native magistrates, the greater number made rapid advances in industry. The people of Lambayeque applied themselves with so much assiduity to agriculture and manufactures, that they became in a short time equal, if not superior, in that respect, to the Spaniards. The produce of their farms was exempt from taxation, and by this means they had a great advantage over the other castes. The Indians paid only a trifling personal impost,^a which might be considered rather as an acknowledgment of servitude, than a real burden. The Caciques and nobles did not pay that tax, but like the Spaniards, were capable of holding any office in the state. No other caste was permitted to reside in the districts inhabited exclusively by the Indians without their consent.^b The mita or law by which they were obliged to work the mines, has been thought the greatest grievance to which they were exposed. Every Indian from the age of eighteen to fifty was forced to labour in the mines; for this purpose, lists were made out and arranged into seven divisions; the individuals whose names were marked in them had to serve for the space of six months, so that every man must have been again pressed into that service after the lapse of three years and a half. The Indian on these occasions quitted his family, relinquished his business, and had to repair to a mine perhaps many hundred miles distant from his cottage. Some, it is true, took their families along with them, and were even entitled to a small sum for the expense of their journey. The price of labour was fixed at half a dollar a day.^{c d} Besides those subject to the mita, there were others that served voluntarily, and these individuals formed the greater portion of the workmen.

^a A capitation tax of six or eight dollars.—*Pinkerton*.

^b *Mercurio Peruano*, X. 275.

^c *Mercurio Peruano*, VII. 37.

^d "The price of labour was at least half a piastre a day, but usually a greater sum."—*M.B.*

^e "From this there would result, for Peru, properly so called, scarcely four millions of inhabitants."—*M.B.*

^f "This would infer a total population of 4,270,788 souls."—*M.B.*

^g *Mercurio Peruano*, I. 273. VII. 37. VIII. 48. X. 273.

^h The translator has not followed the original, in confining this number to the Indian population, as well as in other instances in this paragraph. The original simply states, that the population of the viceroyalty of Lima, by the latest census, was 1,100,000, and adding 200,000 Indians who were supposed to have eluded the census, 1,300,000. This includes the whole

The Indians have decreased since the conquest of Peru, and as the other castes have not increased in the same ratio, the total number of inhabitants is now less than it was at that period. Inaccurate statements, however, have been made on this subject; by the first census in 1551, the Indians in Peru, Santa Fé, and Buenos Ayres, were calculated at 8,255,000; from this account, supposing it correct, the Indian population in Peru, could not be estimated at more than four millions.^o According to another census made in 1581, before the mita was legally established, the number of males fit for that service, or from the age of eighteen to fifty, in Peru and Potosi, exclusively of Quito, Tucuman, and Buenos Ayres, amounted to 1,067,692; but it may be shown from that result, that the whole Indian population in these countries must have exceeded 4,270,000 souls.^{f g} From more recent information, it appeared that there were not more than 1,100,000 natives in Peru,^h or in the viceroyalty of Lima, before the late revolution in Spanish America; but if we suppose, what is very probable, that more than 200,000 Indians eluded the vigilance of the persons employed in making out the census, that country must have contained 1,300,000 Indians. The inhabitants of the provinces added to Buenos Ayres, were calculated at 1,500,000; and there were besides 700,000 persons in the kingdom of Quito, which was also dismembered from Peru. Thus the Indian population of Peru, in all its extent, exceeded at that period 3,500,000 souls.ⁱ The decrease of inhabitants then, is reduced to seven or eight hundred thousand individuals, if the first census^k be admitted as accurate. But it may be proved from many other data, that Peru was at a former period more populous and better cultivated than at present. Travellers describe the remains of works that served to irrigate lands now laying waste, and they give an account of towns and villages long since uninhabited.^l

Ulloa mentions some causes that have tended to diminish the Indian population, and remarks justly, that the immoderate use of spirituous liquors has made more havoc among the people in a twelvemonth, than that produced by the mines in half a century. The Indians of the Sierra have been often found dead in the morning, from their excesses during the night. In the year 1759, government prohibited the sale and distillation of spirits, on account of an epidemical disorder that destroyed a great many natives. The small-pox and the measles cut off immense numbers, and a pestilential disease that spread over the country in the year 1720, depopulated whole villages. The rapid increase of castes is also another cause, and it is not unlikely that the Indians may become extinct from that cause alone. It has been observed, that wherever Europeans are settled among the natives, the population of the latter diminishes; but the deficiencies which are thus left, are supplied by mestizoes and zambos. At some remote period, all the

population. In like manner, by adding the population of the provinces attached to the viceroyalties of Buenos Ayres and New Granada, the total population of Peru, in its original extent, was 3,500,000. This is also the statement in *Pinkerton*, derived from Estalla, who gives the entire population of the viceroyalty of Peru, including Spaniards, Indians, negroes, and mestizoes, by a census recently taken, at 1,076,122, or, in round numbers, 1,100,000, the other numbers, as in *Malte-Brun*, and the population of Peru under the Incas, 4,500,000, leaving a diminution of population in that country of 1,000,000.—*P.*

ⁱ "The total population of Peru, in its full extent, by the last census, was 3,500,000."—*M.B.*

^k "Les anciens recensemens." The remark rather applies to the second census, (1581) than to the first, (1551).—*P.*

^l *Viajero Universal*, XX. 160.

unmixed races may be so much changed and modified, as to make one indistinct mass, and to form completely a new nation.^a

Instances are recorded of Indians and Creoles having lived to a great age. In the year 1792, there were eight individuals in the province of Caxamarca, the youngest of whom was a hundred and fourteen, and the eldest a hundred and forty-seven; this is the more remarkable, as the population of that province does not exceed 7000 souls. A colonist of Spanish extraction, that died in the same district, in the year 1765, is said to have lived a hundred and forty-four years, seven months and five days.^b

The mestizoes, a numerous class of people, hold the next rank after the Spaniards. If they do not possess all the privileges that are granted to the Indians, they are at least exempt from the same burdens. They were sincerely attached to the Spaniards, and for that reason not very friendly to the natives. The descendants of Spaniards and Mestizoes, are denominated Quarterons, and it is sometimes no easy matter to distinguish a person of that cast from a European. The Cholos, or those sprung from Indians and Mestizoes, were confounded with the natives, and subject to tribute.^c

The negro slaves were employed as house servants or labourers in the plantations of their masters; they were not so harshly treated in Peru as in most other countries, and it was lawful for those that had earned a sufficient sum to purchase their liberty. In the course of time the free negroes became very numerous. There must have been a great prejudice against them, for they were generally accused of all the crimes that could not be discovered in the colony; they were idle, cunning, and addicted to stealing, and no class of people did more harm to the state.^d The mulattoes were considered the best artisans in the country, and they enjoyed exclusively the emoluments arising from several mechanical trades.^e

The *Quinchua* language was spoken throughout the whole of Peru, not only by Indians, but Spaniards; it was adopted among the higher circles in Lima and Quito, and the Jesuits contributed to its spread, by their missions eastward of the Cordilleras. In addition to it, other languages were spoken in different districts, as the *Aymara* in the neighbourhood of La Paz, and the *Puquina* in the islands of Titicaca.

The country which we have called interior Peru, differs in many respects from the upper and lower provinces. Its tribes did not submit so tamely to the yoke of the Incas, and they appear to be of a different origin from the Peruvians. The Spaniards gave particular names to several districts, in that part of Peru; such as the Pampa del Sacramento, to the country between the Huallaga and the Ucayal; and the Great Pajonal, to a mountainous tract between the Pachitea, the Enne, and the Ucayal. The province of Moxos is bounded by the Beni and the Madeira, and that of Chiquitos extends to the banks of the Paraguay. As the natives of these districts differ little from each other, it is needless to give a minute account of each province.

The Indians on the banks of the Ucayal and the Huallaga are distinguished from the Peruvians by their strong

and athletic form, their expressive features, and fair complexion. The Conibos, one of the tribes of that people, are nearly as fair as the Spaniards.^f The Carapachos do not resemble the rest of the Indians; the men have long and thick beards; and Father Girbal thought the women not inferior in beauty to those of Georgia and Circassia.^g It is not wonderful that there should be no deformity among that people, for every child that appears to be of a weak constitution is put to death by its unfeeling parents; such beings are supposed to be born under unlucky auspices, and it is considered criminal to allow them to live. During adolescence, a barbarous method is employed to preserve the symmetry of the race; it consists in bandaging different parts of the body, so as to conform it to their absurd notions of beauty. The Omaguas, who formerly inhabited the Pampa, pressed the forehead and occiput of their children, by means of two wooden blocks; in this way they rendered their faces broader, or, to borrow their own expression, made them like a full moon. The missionaries attributed to operations of that sort, the intellectual weakness of the tribes. The inhabitants of these states, at one time so populous, are now greatly diminished. Some of the tribes are extinct; and there are not more than two or three hundred individuals in others.

The languages, or rather dialects, are very numerous. Almost every village has a peculiar idiom. The natives of each tribe are anxious to retain particular words, or any kind of noise to which their chiefs have attached a meaning in time of war. These dialects may perhaps be referred to a few leading languages, but it is probable that they do not all spring from the same source. The Cocamas, for example, speak a dialect entirely different from that of their neighbours the Yurimaguas, on the banks of the Huallaga. The Panos are said to have certain books written in hieroglyphics, which they conceal from strangers.^h

All these petty states are governed by caciques or princes; some of them have two caciques at the same time. According to the statements of the missionaries, polygamy is unlawful among the people, and kings only are permitted to have two wives. Marriage is generally brought about by the heads of families, and the young persons live together from their earliest years. Examples of conjugal love and fidelity are not uncommon; nay, if we believe the Jesuits, there must have been more than one Artemisia among these American savages. On the other hand, it cannot be denied that the marriage tie may be easily broken, and that the parties may regain their freedom by mutual consent.

The religion of these tribes is suited to their imperfect civilization. The supreme being is thought to be an old man, who formed the mountains and vallies of our earth, and chose afterwards to reside in the heavens. He is called their father and ancestor; but neither temples nor altars are consecrated to his service. Earthquakes take place as often as he appears on our globe; they are the steps of an enraged god, that make the mountains tremble. To show their respect on such occasions, all the savages leave their huts, stamp, leap, dance, and utter certain ejaculations, which are supposed to have a great ef-

^a Mercurio Peruano, VII. 94. VIII. 48. X. 262.

^b Idem. ibid. V. 164.

^c Idem. ibid. VIII. 50.

^d Idem. ibid. VIII. 50.

^e Mercurio Peruano, X. 116.

^f Viajero Universal, XXI. p. 152.

^g Idem. ibid. XX. 187.

^h Humboldt, Vues et Monumens.

fect in pacifying the divinity. Many tribes worship the moon, and all of them believe in an evil principle, a sort of devil that resides under ground, whose chief delight is to torment every living creature. The mohanes, or wizards, are believed to hold communications with the infernal spirit, and to employ their art in averting its malignant influence. These men are the only priests of that rude people; they are consulted at the breaking out of a war, and before the conclusion of a peace. It is their office to promise plenteous harvests, and to cure diseases; lovers reveal to them their secrets, and confide implicitly in their predictions. But their trade is dangerous, for many are destroyed by those that they have deceived. The natives wear pipiris or talismans round their legs and arms. Different infusions of plants are taken for different purposes. A young man drinks that he may gain the affection of his mistress; the hunter, to succeed in the chase; the husbandman, for a good crop; and the warrior, to vanquish his enemies. Of all the prodigies which the mohanes perform by means of their talismans, the greatest, but at the same time the most dangerous, is that of healing the sick. Every malady is attributed to their cunning, or the influence of their master the devil; it is supposed too, that a person so inflicted may discover the *mohane* by whose spells he is bound. For this purpose, an infusion of the *Datura arborea*, (Linnæus) is administered to his nearest relation, which throws him into a state of stupor that lasts several days. When he is restored to his senses, he gives a full account of the figure and features of the wizard that appeared to him in his dream. They then seek out the sorcerer who answers to his description, and compel him to undertake the cure of the patient. But, if the patient should die during these preliminary operations, his family endeavours to destroy the sorcerer who is supposed to have caused his death. But it may be easily believed, that visions do not always spring up when they are most required, and on these occasions any mohane is chosen to act the part of a physician. By this means they have probably acquired some knowledge of medicine, and learned the virtues of several plants from practice or tradition, but they depend too much on supernatural agency, and neglect the means that lie within their reach.

These tribes entertain different opinions concerning the soul after death. The tribes which inhabit the banks of the Amazon, in the province of Maynas, believe not only that it exists in another world, but that it still retains the human form. Being interrogated by the missionaries as to the nature of their doctrine, they appeared fearless of death, and declared that their deceased relatives and friends were waiting for them in another world. They affirmed that the hero was thought to meet with a delightful reception, and that his countrymen took the necessary precaution of placing a copper hatchet and a bow by his side, to secure him a triumphant entry. His soul ascended to heaven by the milky way, that luminous garden where his ancestors spent their time in festive mirth; the pleasures of war were not unknown, for the noise of their battles was often heard by their children on the earth. The vanquished, when thrown headlong from the upper regions, occasioned thunder, and were condemned to return again to this lower world in the form of wild beasts.

Such notions are common to most of these Indians, but

the natives on the banks of the Ucayal believe the doctrine of transmigration. "Wherefore," said one of them to a Jesuit, "do you speak so much about my sins? All that you have said of hell is a fable. I am convinced that I can never be burnt on account of my sins; and I know the fate of men after death. Just and wise caciques, brave warriors, and chaste wives, inhabit the bodies of strong and beautiful animals. It is for that reason that we worship them in their new shape. As to bad and wicked men, they wander in the clouds, or languish in the beds of rivers; but no one was ever burnt in a lake of fire."

Their complaints and lamentations over the dead are connected with their particular tenets; they express their grief by imitating the howling of tigers, the nasal cry of the monkey, or the croaking of frogs; and intimate in this way, to the lower animals, the loss of the person for whom they mourn.^a An aged female is appointed to close the mouth and eyes of the deceased. This ceremony being performed, the air is filled with the bitter groans of near relations, and the yells of a thousand old women, who collect themselves willingly for such purposes. The obsequies of a cacique last for several days, and the people weep in concert at day-break, noon, and midnight. Some of these Indians, like the Moabites, cut off their hair after the death of their relatives. They not only destroy the furniture of the deceased, but set fire to his cottage. The body is placed in an earthen vessel or painted jar, which is buried in a sequestered spot, and a covering of potter's clay laid over it. No monuments are erected to the dead; they even level their graves to prevent their being discovered by strangers. After the funeral rites are finished, all mention of the deceased is forbidden, and his name and memory are soon forgotten. A different custom prevails among the Roa-Mainas, another tribe of these savages; they disinter their dead, whenever it is thought that the fleshy parts of the body have been worn away. The skeleton is placed in a new coffin, painted with hieroglyphics, and conveyed in this state to the house of the mourners, in order that it may be held in greater veneration. After the lapse of a twelve month, the remains are a second time committed to the earth, never again to be disturbed. The Capanaguas, a tribe on the banks of the Magni, roast and eat the dead bodies of their relatives; that practice is a part of their superstition, and inculcated by their priests.^b Several tribes of these Indians are said to devour their prisoners of war; the Guagas, in particular, are addicted to that barbarous custom.

They are not impelled by necessity to cultivate the ground; their forests are stored with game, and their rivers with different kinds of fish. But the water in many places is of a bad quality, and disagreeable to the taste; they till the land to obtain massado, their favourite beverage, a bitter and intoxicating liquor made from the roots of the *yucca*.

They receive *chambos*, or small copper hatchets, from different tribes inhabiting the Cordilleras, and make, with these instruments, others of stone. A Jesuit has taken notice of a circumstance, that may give us some notion of the value which they put upon our iron axes. One of them told Father Richter, that he would sell his son for an axe; the priest reproached him for his want of affection. The savage replied, that he had many children, that his son

^a "Undoubtedly they intend by this, that all nature laments the death of the departed."—M.B.

^b Viajero Universal.

would not always serve him, but an axe might be useful to him during the whole of his life. The fatigues of war, hunting, and fishing, have irresistible charms for these barbarians. Their weapons in the chase, and in the field of battle, are the same; they consist of spears, clubs, darts, and arrows dipt in vegetable poisons. Convinced of the efficacy of their weapons, they attack fearlessly the strongest animals in the forests. If an arrow grazes the skin of a wild beast, it falls lifeless to the ground.

Particular situations are chosen for their towns, which are built for defence; they resemble semicircular forts, and have two gates of communication, one on the side of an ascent, and the other towards a plain. The whole represents a half moon, with its convex circumference fronting a forest. By this means, when assailed at one of the gates, they have an outlet at the other, and are enabled to defend themselves with advantage. Some of the tribes treat their prisoners with humanity, and never employ poisoned arrows against their enemies.

The missionaries added to the Spanish dominions, the vast province of Maynas. In the seventeenth and at the beginning of the eighteenth century, they had flourishing settlements on the banks of the Manoa; but these have been since destroyed, and the loss of this position, which commanded the course of the Ucayal, enabled the natives of the Great Pajonal to throw off the Spanish yoke. That country maintained its independence for nearly forty years; but the missionaries from the seminary of Ocapa, particularly fathers Girbal and Sobrevela, have brought about a friendly intercourse with many of the natives. Enlightened planters too, have by their judicious measures re-peopled and restored to Spain many deserted districts between the Andes and the Guallaga.

The missions of the Jesuits to the Chiquitos and Moxos were, even in a political point of view, attended with much advantage. After the abolition of that order, those that succeeded them either neglected their duty, or were not fitted for the task.

The districts eastward of the Andes are visited by continued droughts or incessant rains.^a During the rainy season, the plains are changed into lakes, and whole plantations are sometimes submerged. The trees of the forests seem to float on the water. The quadrupeds take refuge in their summits, and shell-fish have been found adhering to their lower branches. The cold east wind dries the atmosphere, and the waters gradually subside; the banks of the rivers appear, and the islands which were inundated

seem to rise from the deep. But the heat and excessive humidity of the climate, and the sudden changes to which it is liable, render the country unhealthy. In the lower districts there are many large rivers, and the means of communication are safe and easy; but towards Upper Peru, the roads are broken by precipices, cataracts, and torrents. If the traveller go thither by water, he must often quit his canoe for a *balza*, or slight raft made of reeds; and his journey by land is not less dangerous, for he must pass through dark and interminable forests.

There are gold mines in the hills to the east of the Andes, and the periodical inundations of the rivers fertilize the plains. Interior Peru seems to have been at a former period covered with wood;^b the tamarisk and palm-tree flourish in its vallies; beautiful flowers, and aromatic plants of exquisite fragrance, grow wild in many parts of the country.

The sustillo, or paper insect, is found in the valley of Pampantico, near the banks of the Upper Guallaga. It lives exclusively on the leaves of the *pacal*, or *Mimosa inga*. They are considered delicate food by the natives, and although a great many are destroyed every year, their loss is speedily supplied, and their number is not sensibly diminished. After having stripped a tree of its leaves, they descend from the branches, fasten on its trunk, and begin the wonderful texture, which they instinctively weave. They arrange themselves in the best order, and observe in their works the most exact proportion. Although the paper varies according to their number, and the quality of their food, it is always superior in thickness and durability to the best sort that is made in China. The sustillos are sheltered below this aerial tent during their metamorphosis; they attach themselves to the lower side in horizontal and vertical lines, so as to form an exact cube. In that situation the insect envelopes itself in a covering of coarse silk, and remains there, until it becomes a butterfly; it then leaves its prison-house, the fragments of which float in the air, and are whitened by the sun.^c Antonio Pineda sent a yard and a half of this paper to Madrid. A nest, in excellent preservation, was also sent to one of the museums in the same city. Calancha, a Jesuit, who has given an account of the sustillo, tells us, that he wrote several letters on that kind of paper.^{d e}

Thaddeus Hænke discovered a large plain in the province of Chiquitos, covered with salt marshes; their crystallized, and still surface, reflected the image of perpetual winter; small saline crystals, not unlike hoar frost, were suspended from the trees.

^a "The dry season lasts from June to December; the rainy season from December to June."

^b "In its uncultivated state, all the country east of the Cordilleras is covered with forests."—M.B.

^c "When it has escaped from its prison, it detaches the greater part of the threads by which its covering was suspended; but it generally remains

VOL. II.—NOS. 83 & 84.

attached to the branches of the tree, and, bleached by the sun, floats on the wind like a tattered banner."—M.B.

^d Historie de Perou, I. p. 66.

^e "Father Calancha, a jesuit, who has given some account of this curious insect, was in possession of a piece of this paper, on which he had written a letter."—M.B.

BOOK LXXXIX.

THE DESCRIPTION OF AMERICA CONTINUED.

Chili, Paraguay, Terra Magellanica, or Patagonia.

PRECIPICES and snow-covered mountains form a boundary between Chili and Peru;^a Nature has separated that beautiful and fertile country from the rest of the world; yet the Incas had penetrated thither before the arrival of the Spaniards, but neither of them could complete their conquest, or force some of the inhabitants to give up their freedom. The climate is mild and salubrious; the natives are healthy and robust. The spring continues from the latter part of September to December, and then the summer of the southern hemisphere begins. The north wind blows with little variation during the rainy season, or from the middle of May to the beginning of Spring. A dry south wind continues throughout the rest of the year, not only in the country, but even at a considerable distance off the shore.^b The coast consists of a narrow beach, abruptly terminated by lofty hills, behind which extends a fertile plain,^c watered by many streams, and covered in some places with orchards, vineyards, and meadows. The summits of the Andes, and many volcanoes^d burning in the midst of snow, heighten the natural beauties of this rich landscape. Gold and copper mines abound in the mountains, and there have been discovered in the Andes whole hills of magnetic iron ore. The banks of the rivers are covered with ferruginous sand; but although the soil is impregnated with many different metals, vegetation appears in its utmost luxuriance. The mountain forests are full of lofty trees; all the fruits of Europe, and a great many aromatic shrubs grow in the vallies.^e Chili, indeed, is the only country in the new world where the culture of the grape has completely succeeded. But our knowledge of its vegetable and animal productions is still very imperfect; yet it is evident that they open up a wide field for the natural historian, and furnish many articles of great value in commerce. We cannot classify the odoriferous and other plants which Molina^f has mentioned, nor ascertain if the Chili pine should be classed with those of Europe, nor determine whether the cedars of the Andes resemble those of Lebanon.^g The accounts given us concerning the prodigious growth of the forests in these mountains, seem to be exaggerated. A single tree is said to have afforded a missionary a sufficient quantity of wood for a chapel more than sixty feet in length; beams, laths, doors, windows, altars, and two confessionals, were made from its venerable trunk.

^a Chili is separated from the maritime part of Peru, on the north, by the desert of Atacama.—P.

^b Vancouver, t. V. p. 406.

^c The maritime part of Chili presents three chains of hills, parallel to the Andes; the mediterranean is mostly plain.—*Pinkerton*.—P.

^d There are fourteen active volcanoes in the Andes of Chili.—M.B.—*Ed. Encyc.*—P.

The *Myrtus luma* and *maxima* are forty feet in height, and the olive tree about nine feet in circumference. The grass in some places is so tall, that the cattle are concealed among the pastures. The apples are remarkable for their great size; and of fourteen different kinds of peaches, one sort weighs about sixteen ounces.^h Many shrubs and plants are useful in dying; the *Rubia Chilensis* yields a bright red, and the *Eupatorium Chilense* a rich yellow. A different shade of the same colour is obtained from the *Santolina*, and a black die is extracted from the root of the *Paula tinctoria*, *gen. nov.*

Molina takes notice of thirty-six different species of quadrupeds indigenous to Chili; but many of them are little known. The *Castor Huidobrius* frequents the banks of lakes and rivers, but does not build its habitation after the manner of the common beaver; the fur of this animal is much prized. The *Mus cyaneus* is not unlike the ground mouse, but its ears are rounder, and its hair is grey. The *Chinalla*, or *Mus laniger*, is covered with a fine ash-coloured wool of a sufficient length for spinning. The *Mus maurinus*, and Chilian squirrel, are two other animals peculiar to the country.

Copiapo is bounded on the east by the Andes, on the west by the Great Ocean, on the south by Coquimbo, and on the north by the deserts of Atacama. It is about a hundred leagues in extent from north to south, and is famed for its copper, fossil salt, sulphur, and lapis lazuli. Copiapo, the capital of the district, is an inconsiderable town, about twelve leagues from the sea; its population is less than 12,000 souls. Coquimbo, sometimes called La Serena, is the chief town in a partido of the same name; the streets are shaded with myrtle trees, and arranged so as to form squares; a garden, well stored with fruit trees, is attached to every house. The soil in the neighbourhood of Coquimbo and Guasco is impregnated with metallic substances. The copper is valuable, and of the best quality; 10,000 quintals were annually exported to Spain, and 30,000 to Lima. The province of Quillota is about twenty-five leagues from north to south, and nearly twenty-one from east to west. The capital, St. Martin de la Concha, or Quillota, is built upon a fertile valley on the banks of the Aconcagua; but the flourishing city of Valparaiso has of late years attracted most of the settlers. It stands on the base and side of a steep hill, and is inconve-

^e "The forests are full of lofty trees, some valuable for their wood, others for their gums and resins; the plain is covered with aromatic shrubs and saline plants, and is suitable to the cultivation of all the European crops."—M.B.—P.

^f Molina's Natural History of Chili, *passim*.

^g *Idem*. *ibid*.

^h Bonnycastle, vol. II. p. 246.

niently situated for building. Trading vessels from Lima take in their cargoes at Valparaiso, which consist, for the most part, of wheat, tallow, leather, cordage, and dried fruits; the inhabitants receive in exchange, tobacco, sugar, and spirits. The harbour is much exposed to the north winds, but the ships make generally three voyages during the summer, or from the month of November to June.

Santiago, the capital of Chili, was founded in the year 1541, by Pedro de Valdivia. It was originally called Nueva Estremadura; its streets are wide and well paved, its gardens are watered by canals, and the principal square is adorned with a fine fountain. The town is bounded on one side by a hill, and on the other by a large plain. The palace, the court of royal audience, the town-hall, the prison, the cathedral, and the mint, are the most remarkable public buildings. The cathedral was planned and begun by two Englishmen, the mint is the work of a Roman architect. The governor and the primate of Chili resided at Santiago. The extensive diocese, of which it is the chief town, was erected by Paul IV. in the year 1561. As the capital is the centre of all the internal traffic of the country, it is well stored with every sort of merchandise, and there are more shops in it than in any other city of Chili. Its population and commerce increased rapidly; the former, before the late revolution, was said to be more than 50,000 souls. The inhabitants are gay and hospitable, and in these qualities excel their countrymen in the old world. Music and dancing are there, as well as in most other places of Spanish America, the favourite amusements of the people.

Petorca, renowned for its gold mines,^a lies eastward of Santiago; like those of Peru, they are situated in the region of perpetual snow. The ore in the mountain of Uspallata is so rich, that a quintal of it generally yields sixty Spanish marks.^b

Talca is the chief town in the partido of Maule, a district abounding in wine, corn, and cattle. The capital is built near two hills; many amethysts are found on the one, and the other consists of a particular sand or cement called talc. There are gold mines in the fertile province of Puchacay, a country in which agriculture repays abundantly the labours of the husbandmen; the ear of corn often contains more than sixty grains, and the vine bears in the same proportion. The meadows are covered with herds; in the year 1797, fat oxen were sold for four crowns, and the price of a sheep was less than a dollar.^c d Conception, or Penco, was founded by Valdivia, and destroyed in 1751 by an earthquake. The inhabitants then chose a place for their town in the beautiful valley of Mocha, at a league's distance from the former site; it has since that time been called Mocha, or New Conception. The population is supposed to exceed 12,000 souls.^e The corregidor of the town commanded the troops on the Araucanian frontier. The place is chiefly of importance

^a Ulloa, Observations, book VIII. chap. 9.

^b Aspalata, in the province of Aconcagua, is the largest and richest of the silver mines in Chili.—P.

^c Voyage de la Perouse, t. II. p. 60. Compare Feuillée, Observations, t. I. p. 312. and t. II. p. 345.

^d "In the province of Conception, (Puchacay,) corn yields sixty for one; and the vine is equally productive. In 1787, the price of a full-grown ox was eight piastres, and that of a sheep three fourths of a piastre."—M.B.

^e "13,000 souls"—*Ed. Encyc.*; 10,000—M.B.

^f "The great island of Chiloe is the principal of the archipelago of Chonos, which is composed of forty-seven islands, of which 25 are inhabited."—M.B. The archipelago of Chiloe, with that of the Chonos dependent upon it, comprehends 82 islands, of which 32 are inhabited.—*Ed. Encyc.*—P.

from its vicinity to Conception Bay, one of the best in Spanish America. The fortresses of Araucos and Tucapel, and several others, were erected to check the incursions of the Indians, now reduced to a state of subjection. There is a good harbour at the town of Valdivia, and plenty of timber in the adjacent country.

The archipelago of Chonos or Chiloe, consisting of forty-seven islands, is situated in a gulf near the southern extremity of Chili. Thirty-two of them were colonized by Spaniards and Indians, the rest are uninhabited.^f Isla Grande, or Chiloe, is the most considerable in the group; its name has been given to the whole archipelago. It is well wooded, and produces as much corn as is sufficient for the consumption of the inhabitants. The sea-port of San Carlos de Charcao, and the town of San Juan de Castro, are the most remarkable places in the island. The whole population of Chiloe amounts to 25,000 souls. The natives speak a peculiar language called the *Veliche*.^g The climate is not unwholesome,^h but the country is subject to earthquakes. A very dreadful one took place in the year 1737; the Guaytecas, a group of islands to the south, were covered with ashes, which destroyed almost every sort of vegetation for a period of thirteen years.ⁱ k

The two islands of Juan Fernandez are 110 leagues from the coast of Chili. The largest was discovered in 1563, by a Spaniard, who gave it his own name; it was so much praised by the early navigators, that it has been thought an earthly paradise. It is not more than four leagues in length from east to west; the country in general is mountainous, but interspersed with woods and fertile vallies. Its chief advantage arises from its being a good resting place for ships. Many English navigators touched there in their voyages round the world. It has been occupied for more than fifty years by Spanish settlers,^l who have erected a battery, and built a town on the island.^m The name of Mas-a-tierra, or near the land, has been given to the largest; the other is generally called Mas-a-fuero, or the more remote. The Isla de Cabros is an uninhabited rock at no great distance from the south-western extremity of Juan Fernandez. Cedar and sandal trees grow on these islands. Two persons, whose romantic adventures gave rise to the novel of Robinson Crusoe, resided on one of them. Alexander Selkirk, a Scotsman, being left by his fellow sailors, lived there for four or five years,ⁿ and obtained a scanty subsistence by hunting; the other, a Mosquito Indian, was abandoned by a party of Buccaneers.

Cuyo, formerly a Chilian province, is separated from the rest of the country by the Andes, and for that reason sometimes called *Trasmontano*. It is bounded on the north by Tucuman, on the east by the deserts of Buenos Ayres, and on the south by Patagonia. That part of the Andes which divides it from Chili is exposed to violent and frequent storms. The climate of Cuyo is variable; on the

^g The language of the natives (Chilotes) was originally the same as the Araucanian, or Moluche, but they have gradually adopted the Spanish vocabularies, while they have minutely retained the syntax and idioms, as well as the inflexions and accent, of their original language.—*Ed. Encyc.*—P.

^h "The climate is healthy, but cold and rainy"—M.B. The climate is so extremely moist and rainy, that they are obliged to cut their grain before it is perfectly ripe, and dry it in sheds and barns.—*Ed. Encyc.*—P.

ⁱ *Viajero Universal*, XV. p. 366.

^k "In 1737, an enormous globe of fire burst on the Guaytecas, and reduced all the vegetables to ashes"—(*Viajero Univ.*)—M.B. ?—P.

^l This settlement was formed in 1766.—P.

^m Relation de M. Moss, *Annales des Voyages*, XVI. 169.

ⁿ From 1705 to 1709.—P.

high grounds, the winter is intensely cold, and the plains are scorched by the summer's heat. The country, for want of moisture, is barren; in the neighbourhood of rivers, or even canals, it is verdant and fruitful. The eastern part consists of fertile plains; unlike those of the Oronoco, or La Plata, they are covered with lofty trees. A remarkable species of the cocoa palm is not uncommon in the vallies; its leaves resemble the aloë's, and the centre of its trunk is so soft, that the inhabitants use it for making cloth, which if it be not very fine, is at least strong and flexible. It is only lately that the gold and silver mines in the north of Cuyo have been worked. Lead, sulphur, coal, and gypsum, are found in the mountains, and salt is easily obtained from the lakes and marshes. The hills near St. Juan de la Frontera, are composed of white marble; the people use it for making lime, or building bridges across the canals that irrigate their fields. The wealth of the district depends chiefly on that of the surrounding countries, and it must be greatly increased if ever the trade of China or the east extends to the southern or western shores of America. Mendoza, the capital of Cuyo, is a flourishing city, and its population is rapidly increasing.^a

The province of Tucuman, a country little frequented, and consequently not very accurately known, lies to the north east of Cuyo. Branches of the Andes traverse it on the north; the rest of the district is one immense plain. Many rivers in Tucuman are changed into large sheets of water, from which they never issue. The Rio Salado falls into El Mon Chiqueto and the Rio Dulce, after a course of two hundred leagues, unites with the Salado, and is lost along with it. These lakes, occasioned by the inundations of rivers, are not very deep. The soil in many places is impregnated with fossil salt, and the water of every pool or river in that part of the country is brackish and disagreeable to the taste. The cattle devour eagerly the salt on the herbage; it is indeed necessary to their existence, for they perish if deprived of it for a short time. Saltpetre may be collected on the plains; the ground is frequently whitened with it after a shower. Although there is hardly any transition from winter to summer, the climate has been considered healthy and salubrious. The districts watered by rivers, afford rich pasture, and are generally covered with sheep and oxen. Of wild animals, the deer and different sorts of game are the most common. The soil is well adapted for the culture of maize, cotton, and indigo. Swarms of wild bees frequent the forests between the Dulce and the Salado, and a species of insect weaves vast net works of silver coloured silk on the trees called the *aromo*. The wild cochineal is of a very good quality.^b Mr. Helm states that there are in Tucuman two mines of gold, as many of copper and lead, one of silver, and another of rock salt. The Quebracho tree, so called from its excessive hardness, grows in the vicinity of San Miguel; the axe is sometimes broken before the tree can be cut asunder. The commerce of Tucuman consists of corn, wine, and cattle; it is computed that 60,000 mules are fattened every year in the valley of

Lerma, previous to their being exposed for sale at the great annual fair. The principal towns of the province are San Felipe or Salta; its inhabitants, and especially the lower orders, are often afflicted with a species of leprosy, and the women are disfigured by goitres at an early age;^c Jujui, built near a volcano that emits clouds of dense air, and a great quantity of dust;^d Cordova, the residence of a bishop, and the finest city in the country. The university of the Jesuits at that place was considered a good seminary of education. A few villages, scattered over the wide plains of Tucuman, have been sometimes dignified with the name of towns. London was founded in 1555, to commemorate the marriage of Mary, queen of England, with Philip the Second of Spain. We may form a tolerably correct notion of these towns from a letter of Cattaneo, a Jesuit, of which the following is an extract:—"The Provincial-general set out with his secretary^e to visit the different settlements in Tucuman; on their way to Rioja, a town about two hundred leagues north-west of Cordova, they had to travel along a road as solitary as it was difficult. Their progress was slow, for the path was stony and uneven. About the twentieth day of their journey, the secretary, who had gone before his companions, fell asleep under the shade of a tree. The muleteer who served as a guide, came up to him, and remarked, that a person of his condition ought not to sleep in a street. The secretary, astonished at such a rebuke, replied, that he had travelled three weeks, and had long since despaired of ever seeing Rioja. You are now there, rejoined the muleteer, this is the great square, and the convent of the Jesuits is behind the trees." The inhabitants of Tucuman, free from the cares and disquietude of great towns, enjoy the blessings of a country life. Their groves resound to the music of dancing; the shepherds and shepherdesses sing to the accompaniment of a rustic guitar, alternate strains ruder but not unlike those of Theocritus or Virgil; even the Christian names of the people are pastoral, and remind the traveller of old Arcadia.^f

The country watered by the La Plata has been generally called Paraguay, although, to speak correctly, that name should be confined to a single province.

The province of Chaco, and the country in general between the Great River and the Andes, is an immense plain, impregnated with salt and nitre. These plains are often overwhelmed by moving sands, or rendered unwholesome by marshes, into which the rivers flow for want of a sufficient declivity to carry them to the ocean. But the face of nature is very different on the eastern banks of the La Plata. Hills rise between that river and the Uruguay, while steep and rugged mountains separate the latter river from the ocean. On the one side the whole country is of the primitive, and on the other of the alluvial formation.^g The rapid Uruguay, shaded by thick forests, becomes very broad near its mouth, and surpasses in magnitude the Rhine or the Elbe; even at four hundred miles up the river, the distance from one bank to another is more than a league.^h It is navigable seventy leagues from its mouth,

^a "The province of Cuyo is fertile in fruits and corn. Its wines are carried to Buenos Ayres and Monte Video. These wines resemble in colour a potion of rhubarb and senna, and in taste are not dissimilar. They take this taste, perhaps, from the tarred goat skins in which they are kept. They are drank almost exclusively throughout the whole of Paraguay."—M.B. It is said that Mendoza and Juan de la Frontera have exported in one year more than 20,000 barrels of wine.—*Pinkerton*.—P.

^b *Viajero Universal*, XX. p. 126—129.

^c "At about the age of 25 years."—M.B.

^d *Viajero Universal*, XX. p. 139.

^e "Companion."

^f For instance, Nemesio, Gorgonio, Spiridion, Nazaria, Rudesinda, &c. *Reorganizacion de las colonias orientales de la Plata, &c.* Addressed to Charles IV. of Spain.

^g "At 200 leagues from its mouth, it takes an hour to cross it"—M.B. About 690 miles above its confluence with the Parana, a ten-oared boat requires half an hour to cross it.—*Ed. Encyc.*—P.

or as far as Salto Chico; the rest of its course is broken by rapids. The country near Buenos Ayres is fertile, but ill supplied with wood; its sandy soil is mixed with a rich black mould. The pampas extend to the south, and the view is bounded by these deserts. A stunted shrub, or even a tuft of saline plants, is seldom seen by the weary traveller.

The great increase of European horses and oxen, both in a wild and a domestic state, is a remarkable circumstance in the natural history of these countries. Azara, who has minutely examined this subject, states, that horses and oxen were imported from the year 1530, to the year 1552, in great numbers. Many of the horses are now wild, and ten thousand of them are sometimes seen in a single herd. The greater number are of a chestnut colour; they are easily broken, and not inferior to the common horse. The oxen are particularly abundant in the province of Chiquito and the plains of Monte Video. They are as useful to the colonists, as the rein deer or camel to the Laplanders or Arabs; they not only afford them nourishment, but their hides are an important article in trade;^a cups, spoons, combs, and pitchers, are made of the horns, and the leather is converted into cords, mattresses, and cloaks; candles, and soap, are obtained from the tallow. The cattle in Monte Video are larger than those in the neighbourhood of Salamanca, which are said to be the largest in Spain. One breed is remarkable for its small head and thick hair.^b The *chiros* is another variety, so called from its erect and conical horns. The wild oxen may be easily tamed; it is probable that they might become a source of riches in the hands of a more industrious people. But the inconsiderate avarice of the hunters has incited them to destroy immense numbers of these animals. From the Falkland islands to the 27th degree of south latitude, the cattle seldom frequent the *barreros*, or saline and nitrous lands; the waters and pastures of the country contain perhaps a sufficient quantity of salt. Nearer the equator, they thrive only in the vicinity of these lands. The *barreiros*, says Azara, are necessary for their existence. Eastern Paraguay, and a great portion of Brazil, confirm the truth of his remark.

Chaco is almost wholly occupied by Indian tribes, and all of them are still in a savage state. Some of these tribes have become extinct, or have changed their names, so that they can no longer be traced with certainty. The *Lule*, whose language is said to differ from most of the American dialects, by the great simplicity of its grammar, is of this number. The *Zamucas* speak a very remarkable and peculiar language, according to the missionaries; but they are not even mentioned by Azara. The *Guaicurús*, the most warlike of these Indians, are nearly extinct. Their depopulation is the effect of their barbarous habits; it is not uncommon for parents to destroy their children.^c A like custom prevails among the *Lenguas*. The *Guanás* are the least savage of these Indians, yet they have hardly any notion of religion or morality; the women are devoid of humanity; they have been known to bury their own children alive.^d The *Enimagas* and the *Guentuse* accompany each

other in their emigrations; the *Moyas*, who are continually at war, live by agriculture, and force their slaves to cultivate the ground. But of all these tribes, the *Abipons* are the most renowned; their number amounted formerly to about five thousand souls;^e they inhabited part of the country called Yapizlaga, on the banks of the La Plata, between the 28th and 30th degrees of latitude.^f They surpassed other savages in subduing the wild horse, and in the use of the bow. Their warlike spirit proved formidable to the Spaniards, and the labours of the missionaries amongst them were attended with little success. Defeated in several battles, the Abipons were at last reduced to seek for protection among the Spaniards. Since that period they have gradually decayed.^g The features of the men are regular; the women are nearly as fair as those of Spain.

Paraguay derives its name from the Payaguas, a treacherous and deceitful people, that subsist by fishing. It was believed that they worshipped the moon, but Azara denies that they had any religious creed; contrary, however, to the custom of the neighbouring savages, they covered their burying places, and preserved, with superstitious care, whatever was left by the dead.^h The Portuguese having passed the frontiers fixed by several treaties, not only invaded the territory of the Payaguas, but established the military station of New Coimbra on the right bank of the river. The conquest of Spanish Paraguay might have been facilitated from the advantages which such a position afforded them.^k

There is no reason to believe that the mines of Brazil extend as far as Paraguay. In the manuscript report, addressed to the king of Spain, which has been already quoted, no notice is taken of any gold mines in Paraguay, although mention is made of an inconsiderable one near the Uruguay, and this fact gives additional weight to the statements of the Jesuits.^l

Paraguay produces the famous braziletto, or Brazil wood, but it is much more common in the beautiful country which bears its name. The cotton plant is seen throughout the province, and the sugar cane grows without culture in the marshy grounds. Dragons-blood, emchona, nux vomica, and vanilla, are the common productions of the country. The pomegranate, the peach, the fig, the orange tree, and a variety of palms, flourish in rich luxuriance. The leaves of a species of *Ilex* are made into the *maté* or Paraguay tea, so much used in South America. The most extensive plantations are near New Villarica, in the neighbourhood of the mountains of Maracayu, on the east side of the Paraguay, in about 25° 25' S. lat. If the labourers be deprived of that western tea, they refuse to work the mines. The quantity sold every year in Peru, Chili, and Buenos Ayres, is worth more than two millions of dollars. Paraguay tea is more used in these countries than Chinese tea in England; the twigs are put in with the leaves, and it is taken through a silver or glass tube.

Azara takes notice of three different kinds of *simia*, (monkeys,) the *miriquina*,^m the *cay*, and the *caraya*. The last sort is the most common; at sun-rise and sun-set the woods re-echo its hoarse and dismal cries. The great ar-

^a "More than a million of hides were exported in 1794."—M.B.

^b "A breed, called *nata*, has the head one third shorter than common, and the forehead covered with curly hair."—M.B.

^c Azara, Voyage au Paraguay, II. 146, 147. ^d Idem. *ibid.* page 93.

^e When they were visited by Dobrizhoffer, (who left America in 1767, after a residence of 22 years,) they had been reduced by their wars to a little more than 5000. They had been previously much more numerous.—P.

^f Dobrizhoffer, de Abiponibus, 1784.

^g "They have become almost extinct."—M.B.

^h Azara, Voyage au Paraguay, II. 119—144.

ⁱ "Contrary to the custom of the other Indians, they preserve whatever is left by the dead. They raise little tufts above their tombs."—M.B.—P.

^k Reorganizacion de las Colonias, &c.

^l Muratori, Missions du Paraguay, p. 275.

^m Marikina?—P.

madillo burrows in the forests; other species haunt the fields and the borders of the woods. *Guazu*, which is very similar to our word gazelle, is a general name for four species of deer, different from any in the old world. Besides the *jaguar* and the *cougar*, we meet with the *chibiguazu* or *Felis pardalis*, the *yaguarundi* and the *evra*, species of tiger cat, that have been only seen in America.

There is no considerable town in the province of Paraguay; the capital, Asuncion,^a or Nuestra Señora de la Asuncion, was at first a small fort built on an angle made by the eastern bank of the Paraguay, about eighteen miles from the first mouth of the Pilcomayo. It became in time the chief town of the diocese; its streets are ill built and inconvenient from their many windings. The population consisted formerly of about two thousand Spanish colonists, and several thousand Mestizoes and Indians.^b The climate is temperate, and the adjacent country rich and fertile; throughout the year many of the trees are either in foliage or loaded with fruit. The trading boats from Buenos Ayres to Asuncion take two or three months to ascend the La Plata. The only difficulty in sailing up that river proceeds from the force of the descending current, for the passage is made more easy by the prevailing south winds. The other towns in Paraguay, with the exception of Neembucu and Curuguaty, are unworthy of notice. The population of the first amounted, some years ago, to 1800 inhabitants, and that of the latter to 2250 souls. The parishes consist for the most part of country houses, a few of which are situated in the vicinity of a church or chapel, and the rest removed at a great distance from each other. The Indians dwell in hovels, but the Jesuits built villages for such as were converted. It appears from an official report, that in the year 1804, the population of the whole provinces was less than a hundred thousand souls.^c

The countries eastward of the Parana were divided into three governments; the first was that of Corrientes and the missions, between the Parana and the Uruguay; the second, that of Uruguay, between that river and the Rio Negro; and the third, that of Monte Video, between the Rio Negro and the ocean. But all these divisions are commonly supposed to form a part of Paraguay. The vegetable productions of these provinces are very valuable; the sugar-cane grows in abundance; the wood of some trees is well adapted for building ships, others are used for dyeing; the country produces lint, cotton, and the most useful plants of Brazil.^d The population has been calculated at forty thousand Spanish colonists, sixty thousand conquered Indians, and several thousand savages. The Guaranis have extended their settlements to these remote regions. The Charruas, a very warlike tribe, defended with much bravery the banks of the La Plata against the inroads of European invaders. They are silent, morose, and ignorant of dancing, an amusement so common among the American savages. There are several guttural sounds in their language, which our alphabet cannot express.

Monte Video derives its name from a mountain near the

city. The town is completely enclosed with fortifications,^e and situated on the La Plata, at twenty leagues from its mouth. The harbour, though exposed to the north-east winds, is the best on that river.^f The streets are not paved, and the inhabitants are ill supplied with spring water. The population, consisting of Spaniards, Creoles, and slaves, amounts to fifteen or twenty thousand souls; but a great many of the inhabitants reside in the suburbs and vicinity of the town.^g Maldonado, a place of some importance in this province, is built on the same side of the La Plata as Monte Video; its harbour is large and spacious, and trading vessels pass from it to Buenos Ayres.

The Jesuits sent their missionaries to these provinces. Some have considered these institutions as the germs of a future empire; and establishments, the unsuccessful results of which religion and humanity must ever deplore, have been embellished by zeal or degraded by envy. These enlightened and judicious monks, in their endeavours to civilize the Indians, did not confine themselves to the preaching of the gospel. But it must be confessed that they used their temporal advantages with the utmost moderation and prudence. The formation of these colonies along the banks of the Parana and Uruguay, has been attributed in part to the hardships which the Indians suffered from the tyranny of the Portuguese. Every plantation was governed by two Jesuits. An officer, called the curate, was placed at the head of the secular administration, and it frequently happened that he could not speak the language of the Indians. The vice curate, or companion, was a subordinate officer, to whose care the conversion and spiritual improvement of the natives were committed. Their only laws were the gospel and the will of the Jesuits. The magistrates chosen from the Indians were so many instruments in the hands of the curate; they had no authority even in criminal cases. The natives of both sexes were obliged to labour for the welfare of the community, and no individual enjoyed the right of property. The curate, as guardian of the public treasure, managed the produce of a colony's industry, and it was his duty to clothe and maintain every person in the state. No distinction of rank was known among these Indians; their government might be regarded as a transition from barbarism to progressive civilization. It is true that the Indian had no excitement to emulation, for the industrious and the indolent had the same fare and the same enjoyments; but the sway of the monks was admirably adapted for these ignorant and fierce tribes; at all events, the Indians lived happily under it, and were treated as children incapable of governing themselves; savages accustomed to rapine and bloodshed, or to live as the slaves of the Spaniards, regarded the Jesuits as their fathers and benefactors. The protection which the Jesuits afforded the Indians against the Spaniards, was the chief cause of the hatred against that order. Father Aguilar complains, in his apology for the Jesuits, that the Spanish officers wished the Indians not only to submit to the king of Spain, but to the Spaniards themselves, and even to their domestics and slaves. The poor Indian was thus forced to obey the caprices of a task-

^a Assumption, Asumpcion.

^b Population 7000.—M.B.

^c "In 1804, according to an official report, the population of Paraguay exceeded 80,000 souls."—M.B.

^d "The country produces certain plants which supply the place of hemp, excellent cotton, the sugar cane in abundance, and, in general, all the productions of Brazil."—M.B.

^e The town occupies a peninsula, united to the main land, on the north, by a fortified isthmus.—P.

^f The town is on the east side of the harbour, which is open to the westerly winds.—P.

^g "Nearly one half the inhabitants live without the lines, at some distance."—M.B.

master and a negro, or was punished for having rebelled against his conquerors. The natives were baptized; they learnt the decalogue, and a set form of prayer; and it was to these rudiments of spiritual instruction, that the cautious priests limited their first efforts. The Indians wove the cloth which they wore. They were instructed in the mechanical arts by Jesuits who came from Europe for that purpose. They all went barefoot, and the women's garment consisted of a single shift without sleeves; the climate rendered a warmer dress superfluous. The curates employed the moderate profits arising from agriculture, in purchasing instruments, utensils, and arms. The neophytes carried into the Spanish settlements, hides, cloth, tobacco, and Paraguay tea. These articles were delivered over to a procurator-general of the missionaries, who sold or exchanged them to the best advantage. This person was obliged to give an exact account of all his transactions, and after deducting the sum necessary for the payment of tribute, to employ the remainder in the most profitable manner for the Indians, without reserving any thing for himself.

The natives converted by the missionaries were free, and placed under the protection of the king of Spain; every individual paid to the monarch the annual tribute of a dollar, as an acknowledgment of his dependence. They were not only obliged to join the Spanish standard in the event of a war, but to arm themselves at their own expense, and to contribute their assistance in erecting fortifications. Their services in the war against the Portuguese are well known. But the Catholic despots in Europe, regardless of the most sacred conventions, felt little remorse in treating their American subjects in a manner unexampled in the annals of nations. In 1757, a part of the territory of the missions was ceded by Spain to the King of Portugal, in exchange for Santo-Sacramento. It is pretended that the Jesuits refused to accede to this treaty, or to allow themselves to be transferred from one nation to another, without their own consent.—The Indians had indeed recourse to arms, but they were easily repulsed and defeated with great slaughter. The weakness of their resistance proved sufficiently that difference of opinion existed among their chiefs. The Jesuits were driven out of America in the year 1767, and their neophytes were placed on an equality with the rest of the native tribes. After the expulsion of the order, the monks, who were entrusted with the care of their settlements, neglected the Indians, and subjected them to hardships. Merchants and military commanders began anew their rigorous exactions. It is stated in a ministerial report,^a addressed to his Catholic Majesty by an enemy of the Jesuits, that thirty villages of the Guaranis, founded by them, contained 82,066 inhabitants in the year 1774. At the time of the expulsion of the Jesuits, their population was at least 92,000 souls, but within twenty years it had been reduced to less than the half of that number.^b The Portuguese, who were formerly confined within their own limits, had seized upon seven of these villages; and, to check their invasions, it had been found necessary to re-establish the military regulations of the Jesuits. The inference derived from this statement is obvious; if the Indians have made any progress in civilization since the year 1767, if they enjoy any privileges, if a few individuals amongst them clothe themselves after the

Spanish fashion, or if in certain districts they can acquire property, we observe only in these detached instances, some effects of that excellent institution which a tyrannical and blind policy has been unable to destroy.

Santa Fé and the capital of the whole viceroyalty were the principal towns in the government of Buenos Ayres, according to its former limits. The metropolis was the residence of a viceroy and a bishop; it was also the seat of a royal audience, and several other public institutions. Buenos Ayres was founded in 1535, by Don Pedro de Mendoza, who gave it that name on account of the salubrity of its climate. It is built in the middle of a plain, on the south side of the river Plata, about seventy leagues from its mouth. The town is fortified, its streets are broad and well paved, but the harbour is much exposed to the wind, and the river near it is full of rocks and shallows. For that reason large vessels unload at three leagues from the shore, and then sail for the bay of Barragan, and wait for freights. Their cargoes are put into lighter vessels, that enter the city by Buenos Ayres river, which is more easily navigated and better adapted for the unloading of goods. It happens sometimes that the waters of that small river do not reach a certain level, and on these occasions no vessel can pass the bar. There are few places where different sorts of provision are more plentiful than at Buenos Ayres. Butcher's meat is distributed to the poor; merchants frequently buy cattle for the sake of their hides. Poultry is comparatively dear; two fowls cost as much as an ox. The town is the great outlet for all the commerce of the interior, and the produce of Chili and Peru passes from thence to Europe. Vicuna wool is brought from the Andes, copper from Coquimbo, gold from other parts of Chili, and silver from Potosi. The population of Buenos Ayres amounts to sixty thousand souls; its inhabitants were among the first in the Spanish provinces that distinguished themselves in the cause of independence. The creoles in this city submitted with reluctance to the government of the Spaniards, but such as resided in the country were more obedient. It must ever be a subject of regret, that so little attention has been paid to the education or moral improvement of the people.

Almost all the converted Indians, more than half the inhabitants of Paraguay, and the greater number of those on the banks of the La Plata, subsist by agriculture. But that profession is not without its toils; and it is only followed by those that have not a sufficient fund for trade, or are unable to purchase land.^c If a labourer cannot find employment as a herdsman, he is forced to till the ground. The dwellings of the husbandmen are for the most part small and lowly huts, placed at a great distance from each other; their roofs are rudely covered with straw; the walls are formed by stakes fixed into the ground, and the vacant spaces between them are filled up with clay. The shepherd is worse clad, more ignorant and depraved, than the husbandman. This sort of life has nearly brought the Spaniards that follow it to a state of barbarism. The shepherds are numerous; it has been computed that they tend twelve millions of oxen, three millions of horses, and a considerable number of sheep, not including those animals in a wild state. Their herds are divided into as many flocks as there are proprietors. A pasturage containing four or five square leagues, is considered as one of

^a Reorganizacion de las Indias, &c. MS.

^b 42,255 souls.

^c "Or are unable to purchase an estate, and engage in the breeding of cattle."—M.B.

very small size; at Buenos Ayres and in Paraguay it is not thought to exceed the ordinary dimensions. The shepherd, accustomed from his infancy to idleness and independence, cannot suffer the least restraint or inconvenience. Patriotism, modesty, and humanity, are unknown among these degraded colonists. Employed in slaughtering animals, they can shed, without remorse, the blood of their fellow creatures. They seem to have acquired a total insensibility from the solitude of the desert. A love of gaming is their predominant passion; seated on the ground, with his horse's bridle placed under his feet, lest it should be stolen from him, each man has a knife fixed in the earth, that he may be ready to use it against any one whom he suspects to have played unfairly. A person stakes his whole property on a single game, and loses it with indifference. Their good qualities are common to every savage. They welcome and maintain the stranger without inquiring into the motives of his journey; they may steal horses or other articles of less value from travellers, but never think of taking money, because to them it is useless. These Tartars of the new world live on horseback; they hate every occupation that deprives them of their favourite exercise. Strong and healthy, they attain sometimes to a very advanced age; but their bravery and valour are apt to make them regardless of life, and fearless of danger. There are, besides, some inhabitants of these immense plains that refuse to labour, and disdain to serve any master. These wanderers gain their subsistence by plunder; they have carried off women from Buenos Ayres, and, what is more remarkable, some of their wives, like the Sabines, have refused to return home. To provide for the wants of his family, one of these men hastens to the Spanish frontiers, takes away as many horses or oxen as he can, and disposes of his booty in Brazil. The produce enables him to bring whatever articles his family may require. Such was the condition of a great many inhabitants in the Spanish provinces; it is to be hoped that recent changes, and the improvements likely to follow them, may tend to reform the national character.

The vegetable and animal productions of the immense plains round Buenos Ayres differ from those of Paraguay. The climate is well adapted for the different grains of Europe; the *durusno*, a fruit much esteemed in the country, is a variety of the peach.

The jaguar is large but not common; the tapir, the caiman, and the monkey, are never seen in these latitudes.^a The cat of the Pampas, the cavia of Tucuman,^b the hare of the deserts,^c and the Patagonian ostrich, are found in Buenos Ayres. The dogs, as well as the horses and oxen, brought originally from Europe, have become wild; they appear in great numbers on the plains, and their inroads are dreaded by the inhabitants of the country.

The extensive districts, to the south of Valdivia and Buenos Ayres, are thinly peopled by independent tribes. The right by which Spain claims these possessions, is founded on some doubtful maxims of public law, and on the authority of several treaties.^d The Spaniards, after the discovery of these districts, included in the kingdom

of Chili, the western coasts as far as the straits of Magellan, and the eastern formed part of the viceroyalty of La Plata. Many English writers maintain that these countries do not belong to Spain, because they have never been subdued; and, until that event take place, it is reasonable that every nation should have the privilege of planting colonies in those places that are unoccupied. We have already given a short account of Chiloe and the Archipelago of Chonos. The great peninsula of the Three Mountains, and the gulf of Penas, are situated farther to the south. The natives of that coast are descended from the Araucanians, a people that inhabit the rich and fertile districts between the rivers Biobio and Valdivia. The fruitfulness of the soil, abundant springs, and a temperate climate, render that country even more delightful than Chili. Arauco, the smallest province in their territory, has given its name to the whole nation. The Spaniards have called it Araucanian Flanders, or the invincible state; and some of them had the magnanimity to celebrate in verse, the exploits of a people who shed so much Spanish blood in maintaining their independence. The settlements of the Cunchi extend from the Valdivia to the Gulf of Guayateca. The Huiliches extend from the archipelago of Chonos to the Gulf of Penas, and they are even said to carry their incursions to the Straits of Magellan. These tribes have been faithful allies of the Araucanians. The men are muscular, well proportioned, and of a martial appearance; but it is remarkable that the inhabitants of the interior and mountainous districts are stronger than the natives on the coast. Travellers have supposed that they destroy every child of a weak or sickly constitution; their customs tend to preserve the beauty of the human form, for nature is not obstructed in her operations by improper means. The Araucanians never build towns; they reside in scattered villages, or in hamlets on the banks of rivers. Such is their attachment to their birth-place, that children rarely quit the lands of their fathers. Love of liberty and want of refinement made them consider walled cities as the residence of slaves. The maritime part of their country comprehends Arauco, Tucapel, Illicura, Boroa, and Nagtolten; the districts of the plain are Encol, Paren, and Mariguina. Marren, Chacaico, and Guanagua, are some of the provinces on the Andes. Little can be said of the institutions of a society in so rude and simple a state. We may observe, however, that impunity may be purchased for every crime except witchcraft. The unfortunate person accused of sorcery was tortured before a slow fire that he might more readily acknowledge his associates. The military establishment of the Araucanians was not only better than their civil government, but was in every respect superior to the ordinary methods of warfare among barbarous states. A commander in chief was appointed by a military council; as the Toquis enjoyed the highest privileges in the community, they had the first claim to that office.^e But if no one in their order was found worthy of so important a trust, he that best deserved to command, was chosen general. Villumilla, a man of low origin, who was raised to the head of the Araucanian army, distinguished himself

^a They are never, or at least very rarely, seen beyond 32° and 33° lat.—M.B.

^b "The *quouya*, a new species of *Cavia*, known also in Tucuman."—M.B. It is the *cuiy* of Azara.—*Ed. Encyc.*—P.

^c "The viscacha-hare, and the hare of the Pampas."—M.B.

^d "But, by the public law of Europe, and according to all treaties, Spain is in possession of the sovereignty."—M.B.

^e The government is an aristocracy, consisting of three different orders of nobility; the Toquis, who preside over the tetrarchates; the Apo-Ulmenes, who command the provinces; and the Ulmenes, who govern the counties.—*Ed. Encyc.*—P.

by his warlike achievements. The first measure of a national council after a declaration of war, was to send messengers to the confederate tribes, and the Indians residing in the Spanish settlements. The credentials of these envoys were a few arrows bound together with a red string, the emblem of blood. The persons intrusted with a mission were said to run the arrow, and they performed their duty with so much secrecy and expedition, that the object of their journey was seldom discovered by an enemy. That warlike people saw the great advantage which the Europeans had acquired from the use of gunpowder, and tried in vain to learn its composition. They observed negroes among the Spaniards, and because their colour was supposed to resemble that of gunpowder, they imagined that they had discovered the long wished for secret. A poor negro was taken prisoner a short time after this theory had gained followers, and the unfortunate man was burnt alive by the natives, in the belief that gunpowder might be obtained from his ashes. Molina, who tells this story, remarks, that the experiment showed the inaccuracy of their chemical notions. Each soldier in the Araucanian armies was obliged to furnish himself not only with arms, but with provisions, in the same manner as the forces of ancient Rome. Every man was liable to military service, and had to contribute his share to the support of the troops. Their provisions consisted of dried meal, which, when diluted in water, afforded them sufficient subsistence until they plundered the enemy's country. The soldiers by this means were not encumbered with baggage, and possessed decided advantage over the Spaniards, both in making an attack and securing a retreat. Several great commanders of modern times wished to restore the ancient method of provisioning armies, but it presupposes a degree of simplicity incompatible with European refinement. The Araucanians were the only people in South America that maintained their independence by force of arms; but the prudence and ability of a single individual have done more in reducing that warlike people than all the armies of Spain. By the judicious policy of Higgins de Vallenar, president of Chili, the two nations have never been at variance for a period of thirty years, and the fierce natives have experienced the blessings of peace.^a Indian magistrates superintend the trade carried on by their countrymen with the Spaniards. The colonists and natives associate with each other, and Araucanian workmen are frequently met with in the Spanish settlements. The bonds of union have been strengthened by intermarriages; and the missions so successfully conducted by the Jesuits have not been altogether abandoned.^b

The religious notions of the people were borrowed from their civil institutions; the universal government of the supreme essence was a figure of the Araucanian polity. The one had its chiefs or *toquis*, and the other was ruled by the great *toqui* of the invisible world. *Apo Ulmenes*, or ministers of state,^c ruled the heavens as well as the earth. The *Meulen*, or friend of the human race, and the *Guecubu*, or origin of evil, held the first rank among the minor gods. To reconcile the apparent contradictions in the natural and moral government of the world, savage nations had recourse to the agency of two adverse principles. The *Guecubu* was perhaps the most active of these

existences. If a horse was fatigued, the demon must have rode it, for such an event was rarely attributed to natural causes; if the earth trembled, he was walking at no great distance. In short, the life of man had been completely wretched, were it not for the counteracting influence of more beneficent beings. But the force of the evil spirit was by no means despicable, for the *ulmenes* of the heavenly hierarchy were sometimes unable to hold the balance of power. Spiritual nymphs performed for men the offices of household gods. Every young Araucanian had at least one of them in his service. I have still my nymph, was a common expression, when a person had overcome any difficulty. The doctrine of the immortality of the soul was firmly believed by this rude people. Man, according to them, was composed of two elements essentially different, the *auca* or body was mortal and corruptible, the soul incorporeal and eternal. That distinction appeared to them so obvious, that the word *auca* was used metaphorically to denote a half or some determinate portion of any substance. But, although they admitted an existence purely spiritual, yet they entertained very absurd ideas of it. When they buried the dead, a woman followed the bier at a distance, and strewed the ground with ashes, to prevent the soul from returning to its late abode. Arms were placed in the graves of the men, female apparel and domestic utensils in those of the women. Provisions were left to maintain the deceased during their journey, and a horse was sometimes sacrificed that they might ride to the country of the men beyond the mountains. Their opinions on different subjects were the same as those of the most savage tribes. Every storm on the Andes or the ocean, was the effect of a battle between their countrymen and the Spaniards. If the tempest took its course in the direction of the Spanish frontiers, the Araucanians were very joyful, and exclaimed loudly, Pursue them, friends, pursue them, kill them! There is some reason to believe that sages, who despised the common superstitions of their country, existed among them; but if they ventured to inculcate new opinions, or to convince men of their errors, they might have fallen victims to popular rage.^d

The Araucanians divided time into years, seasons, months, days, and hours; but their divisions were not the same as ours. The year began on the 22d of December, immediately after the southern solstice. The northern solstice divided the year into two parts, and was therefore called the divider of the year. These essential points were ascertained with some accuracy by means of the solstitial shadows. The year was divided into twelve months of 30 days each, to which were added five intercalary days. To preserve uniformity in different periods, the day was also divided into twelve parts, each of which was equivalent to two of our hours. Such a method was not peculiar to the Araucanians; it is used by the Chinese and the natives of Japan. They observed the planets;^e *gau*, the term by which they were called, was a derivative of the verb *gaun*, to wash. They held on this subject the same opinions as the ancients, and supposed that these bodies hastened at their setting to plunge themselves into the ocean. An eclipse of the sun or moon was said to be the death of one of them, which corresponds with the *defectus solis aut lunæ* of the Romans. The Araucanians evinced

^a Vancouver, t. V. page 402.

^b These missions have been latterly conducted by the Franciscans.—M.B.

^c The *Apo Ulmenes* are the governors of provinces.—P.

^d Molina, History of Chili, vol. II.

^e Tableau civil et moral des Araucans, trad. du Viajero Universal, Annales des Voyages, XVI. p. 100.

much ingenuity in their games and amusements. Leibnitz has remarked that men have never given greater proof of talent than in the invention of games. If the German philosopher be correct, we must entertain no unfavourable opinion of this nation; it is certain chess was known to them long before the first invasion of the Spaniards.^a But they delighted most in gymnastic exercises, for by them they were inflamed with a love of war. During peace their time was spent in these diversions; the *peuco* represented the siege of a fortress, and the *patican* differed little from the mock fight of the Greeks.^b The inhabitants of different districts met frequently for this purpose; such amusements were not considered useless, they had improved the natives in the military art. Polygamy was lawful among the Araucanians; some of them could form a correct notion of a man's fortune from the number of his wives. But the first wife was treated with great respect by all the others; they acknowledged her to be their superior; she was entitled to precedence and other marks of distinction, not without their charms even to women in a savage state. The marriage ceremony was very simple; it consisted merely in carrying off the bride, who generally feigned reluctance. This method was considered, both by the Araucanians and the negroes, as an essential preliminary to matrimony. Each wife was obliged to present daily to her husband, a dish prepared with her own hands; hence there were as many fires in the Araucanian houses as female inhabitants. How many fires have you? was a polite way of asking a man the number of his wives. Besides other presents, the husband received every year a *poncho* or embroidered cloak. The women paid great attention to the cleanliness of their persons. The trade which this people carried on, was very limited; money was lately introduced amongst them; before that time they exchanged one commodity for another, and the proportionate value of different articles was ascertained by a conventional tariff; a practice analogous to that of the Greeks in the time of Homer. Thus the value of an ordinary horse was considered as unity, and that of an ox as two. Their commerce with the Spaniards was confined to *ponchos* and cattle, which were bartered for wine and the merchandise of Europe. The exactness with which the Araucanians fulfilled their contracts has been commended by the colonists.^c

The province of Tuyu is situated to the south of Buenos Ayres, between the two rivers Saladillo and Hucuque. It is covered with marshes and small lakes. Casuhati, the most remarkable mountain in the country, has been seen by mariners at the distance of twenty leagues from the shore. The Puelches, called Serranos, or mountaineers,

^a Molina.

^b The Spheromachia.

^c This account of the Araucanians is given by the translator in the past tense, as if they were extinct, at least as a peculiar people. Other geographers use the present tense in describing them. We have no particular account of them since the late revolution in Chili; but the description given in the text was at least applicable to them before that event.—P.

^d Thomas Falconer, or Falkner, a missionary in S. America.—P.

^e The report, that there is a nation in these parts, descended from Europeans, or the remains of shipwrecks, is, I verily believe, entirely false, and is occasioned by misunderstanding the accounts of the Indians. For if they be asked in Chili concerning any inland settlement of Spaniards, they give an account of towns and white people, meaning Buenos Ayres, &c.; not having the least idea that the inhabitants of these two distant countries are known to each other. Upon my questioning the Indians on this subject, I found my conjecture to be right; and they acknowledged, upon my naming Chiloe and Valdivia, (at which they seemed amazed,) that these were the

inhabit a district in the neighbourhood of that mountain. Falconer^d tells us that he was acquainted with a cacique there, who was upwards of seven feet, and adds that the Puelches extend their excursions as far as the Straits of Magellan. It is probable that the Pampas or deserts of America extend from Tucuman to the 40th degree of south latitude. Two rivers, the Colorado and the Negro, rise at the base of the Chilian Andes and flow through these vast and unknown regions. A series of lakes and running waters, extending in a parallel direction to the mountains, connects the two rivers near their source. Some savage tribes, descended from the Puelches, wander in the Pampas. Not long after the Spanish breed of horses was known in their country, many became as expert horsemen as the Tartars; others, neglecting the advantages which these animals afforded them, retain still their ancient customs.

According to the Spanish maps, Comarca Desierta, or the desert province, extends from the 40th to the 45th degree of south latitude; its coast only has as yet been explored. The bays of Anegada, Camarones, and St. George, afford good anchorage for ships, but there are neither inhabitants, wood, nor fresh water in the adjacent country; a few aquatic birds and sea wolves remain unmolested on these dismal shores.

Shrubs and different plants appear on the lands near Cape Blanco, which are surrounded by immense plains, impregnated with salt. If there be such a people as the Cesares, we must look for them in these unfrequented regions, at no great distance perhaps from the sources of the Camarones or Gallego. "Their country," says Father Feuillée, "is fertile, and pleasantly situated, enclosed on one side by the Cordilleras, and bounded on the west by a large and rapid river, which separates it from the Araucanians. The greater number of the Cesares are descended from the sailors belonging to three Spanish vessels, who worn out by the fatigues of a long voyage, revolted and fled for shelter to that retired region. No stranger is ever permitted to enter their territory." But Falconer, who denies the existence of that people, has brought forward strong arguments in support of his opinion.^e

The Tehuels inhabit the interior of the country between Comarca Desierta, and the Andes. Falconer thinks that they are a tribe of the Puelches; because many of them are very tall, he concludes that they make excursions as far as the Straits of Magellan, and that they are the same people whom voyagers have described under the name of Patagonians. The Tehuels are peaceable and humane; some of their customs are singular. They carry, for in-

places which they had mentioned under the description of European settlements. What farther makes this settlement of the Cesares to be altogether incredible, is the moral impossibility that even two or three hundred Europeans, without having any communication with a civilized country, could penetrate through so many warlike and numerous nations, and maintain themselves as a separate republic, in a country which produces nothing spontaneously, and where the inhabitants live only by hunting; and all this for the space of two hundred years, (as the story is told,) without being extirpated either by being killed or made slaves by the Indians, or without losing all European appearances by intermarrying with them. And, besides, there is not a foot of all this continent that the wandering nations do not ramble over every year; to bury the dry bones of the dead, and to look for salt. Their caciques and others of the greatest repute for truth amongst them, have often protested to me that there are no white people in all those parts, except such as are known to all Europe, as in Chili, Buenos Ayres, Chiloe, Mendoza, &c.—Falconer's Description of Patagonia.

stance, the bones of their relatives to the desert, on the sea coast, and deposit them in cemeteries amidst the skeletons of horses. The latter practice, however, cannot be of ancient origin, for the horse was unknown to all the wandering tribes of America before the arrival of the Spaniards.

Patagonia is situated at the southern extremity of America, beyond the 46th degree of latitude. Although we can give no additional information concerning its inhabitants, still, so much has been said of them, that we cannot pass them over in silence.

The following account is taken from the voyage of Fernandes de Magalhães:—"The fleet had been two months at Port San Julian, without our having an opportunity of seeing any of the natives. One day, when it was least expected, a person of gigantic stature appeared on the shore. He sang, danced, and sprinkled dust on his forehead; a sailor was sent to land, with orders to imitate his gestures, which were considered signals of peace. The seaman performed his part so well that the giant accompanied him to the commander's vessel. He pointed to the sky, wishing to inquire if the Spaniards had descended from heaven. The sailors' heads did not come up to his waist."^a

Herrera's description of these people is not so marvellous as that of Pigafetta. He says that the least person amongst them was taller than any man in Castile. The origin of their name has been disputed. Magalhães called them Pata-gones, because their shoes resembled the hoof of the guanaco.^b Others insist that their ordinary stature exceeded seven feet, and for that reason they were termed *πεντακωνες*, or men of five cubits. Sir Thomas Cavendish traversed the straits of Magellan in the year 1592; having observed the dead bodies of two Patagonians, he measured their foot marks in the shore, and found them four times larger than his own. Three of his men, while sailing in a boat, were nearly put to death by the rocks which the natives threw into the sea. In short, his whole account puts one more in mind of the fable of Polyphemus than of an historical narrative.^c The relation of Sarmiento, a Spanish corsair, is less liable to objection.^d "The Indian that our sailors had taken," says he, "appeared to be taller than the rest of the natives; he recalled to my imagination the poetical description of the Cyclops. The other savages were strong and well made, but their height did not exceed three varas."^e Hawkins cautions navigators to beware of the natives on the coast of Magellan. "They are cruel and treacherous, and of so lofty a stature, that several voyagers have called them *giants*." Wood and Narborough, two navigators that lived in the reign of Charles II., maintain that the men on these coasts are of moderate stature; but their statements may be correct, without contradicting those of Pigafetta, Cavendish, and Hawkins; for it has never been supposed that all the inhabitants of that coast are of a colossal size. If a traveller saw, in Lapland, only Russians, Norwegians, or Swedes, he might perhaps reject the accounts which are given of the small size of the Laplanders.

Additional information was obtained concerning the Pa-

tagonians, during the eighteenth century. The famous Admiral Byron tells us that he saw them: "The Commodore having landed with a few of his men, made the savages sit down near him; he distributed some toys amongst them, and observed that, notwithstanding their being seated, they were nearly as tall as himself when he stood upright."^f But the best and most minute account is contained in the voyage to the Malouine Islands. Duclos Guyot, who visited the Patagonians in 1776, has left us some curious details concerning their manners and customs. He measured the least man that he saw amongst them, and his height was five feet seven inches; the rest were much taller. It is likely that they had communication with the Spaniards, for they called one of their companions their *Capitan*. They sang and danced like the islanders of the South Sea, and their hospitality was of that rude sort which distinguishes the savage. They were stout and well proportioned, and for that reason did not at first sight appear very tall. Their caps were covered with feathers, and their clothes consisted of guanacos' skins. The French treated some of the women very familiarly, and as their husbands did not resent their conduct, the writer of the voyage has supposed that the Patagonians had no notion of jealousy.^g The *Capitan* and many of his men visited the sloop, where they were entertained and received presents. They ate voraciously, and drank whatever was offered them, among other things, three pints of seal oil. The accuracy of Duclos' statements has been since confirmed in the account of a voyage made by some Spaniards to the Straits of Magellan.^h The tallest person that they measured was more than eight feet, and nearly five round the waist.ⁱ Their physiognomy and meagre beard indicated sufficiently their American origin.

It is obvious, from these observations, made at different times during the course of three centuries, that the Patagonians are the tallest race of men existing at present in the world; their mean height varies from six to seven feet. Other countries may have at a former period contained inhabitants of as gigantic a stature, whose descendants are now degenerated by luxury, refinement, or other causes; but the Patagonians, separated from the rest of mankind, have had little communication with other nations, and adhered always to their rude customs and homely fare.

That portion of America, the most southern country either in the old or new continent, is sterile, cold, and uncultivated. Boisterous winds and sudden changes of temperature are common to the extremities of both continents. But some of the causes which tend to produce such effects exert a greater influence in Patagonia, than in northern countries of a higher latitude. It is detached from the rest of the world by three vast oceans; opposite winds and currents are not uncommon at every season of the year. A broad and lofty chain of mountains occupies half the country, and it is far removed from any mild or cultivated region. The land of the plains on the east differs widely from that of the mountains on the west; the first is a sandy and barren soil, entirely destitute of trees; the atmosphere is generally unclouded and serene, and the heat of summer varies from forty-one to fifty degrees of Fahren-

^a Pigafetta's account of Magellan's voyages.

^b *Patagon*, in Spanish, signifies one who has large feet.—P.

^c Collection of voyages by Purchas, vol. IV, book VI.

^d Histoire de la conquête des Moluques, par Argensola, l. 3.

^e The vara is a measure that varies in different parts of Spain; in some places it is less than two feet and a half

^f Hawkesworth's collection.

^g Voyage de Don Pernetty, t. II.

^h Viage al estrecho de Magalhaens, Madrid, 1768.

ⁱ Height 7 feet 1 inch; circumference round the breast more than 4 feet—Spanish measure.

heit.^a The other portion, composed of primitive rocks, watered by rivers and cataracts, and covered with forests, is subject to incessant rains, and the thermometer seldom reaches above the forty-sixth degree.^b A species of the birch tree (*Betula antarctica*, *Lin.*) flourishes on the higher parts of the coast. A species of palm tree or arborescent fern has been observed on the Straits of Magellan. The guanaco, the viscacha, and the hare of the Pampas, are found in Patagonia. The rocks at Port Desire are composed of talc as transparent as crystal, and marble of different colours. The lands in the neighbourhood are said to be very unfruitful, but Narborough affirms that he saw many herds of wild oxen at no great distance in the interior. The coast is lined in many places with banks of fossil shells. The armadillo and an animal resembling the tiger have been seen near Port St. Julian.

The discovery of Cape Horn, by affording a more convenient entrance into the Pacific Ocean, destroyed the nautical importance of the Straits. They were discovered by the celebrated Magalhães, in the year 1519. Many of the old voyagers, who sailed round the world, were, in that part of their course, exposed to imminent danger. Currents and sinuosities render their navigation difficult and uncertain. The length of the Straits is about 450 miles, and they vary in breadth from fifteen to less than two leagues.^c On the east they are confined by steep rocks; near the middle there is a large basin, on which Port Famine is situated. The colony of Ciudad Real de Felipe was founded there by the Spaniards; but owing to unexpected misfortunes, the settlers perished from hunger. We should form, however, a wrong opinion of Port Famine, were we to judge of it from its frightful name; the adjacent country is well stored with game; it produces different sorts of fruit; lofty trees are not uncommon.^d In the vicinity of Cape Froward, the confines of the Andes are covered with thick forests, and whole trees are sometimes borne down by the Gallego and other rivers, to the Straits of Magellan, and the ocean.

The north-east coast, which confines the western outlet of the Straits, was at one time supposed to be connected with the continent, but it has been since discovered to be part of an extensive group of islands. The archipelago of Toledo, or of the Holy Trinity, is situated farther to the north, and the largest island included in it, is that of Madre de Dios. The Spaniards had stations on some of the islands,^e and several factories on the western coast.

Having reached the extremity of the American continent, we may take an excursion to the neighbouring isles; although many of them are not subject to America, still they are less removed from it than from every other country.

To the south of Patagonia, there are a number of cold, barren, and mountainous islands; volcanoes, which cannot melt, brighten and illumine the perpetual snow in these

dismal regions. "Here it was that the sailors observed fires on the southern shores of the Strait, for which reason the land on that side was called Terra del Fuego."^g Narrow channels, strong currents, and boisterous winds, render it dangerous to enter into this desolate labyrinth. The coast, which is composed of granite, lava, and basaltic rocks, is inaccessible in many places. Cataracts interrupt the stillness that reigns there; seals sport in the bays, or repose their unwieldy bodies on the sand. A great many penguins and other birds of the antarctic ocean flock to these shores, and pursue their prey without molestation. Captain Cook discovered Christmas Sound, a good haven for the ships that double Cape Horn. Staten Land, a detached island which may be considered as forming a part of the archipelago of Terra del Fuego, was discovered by Le Maire. Custom has given an unappropriate name to these islands; they ought, in honour of their discoverer, to have been called the archipelago of Magalhães. The northern and eastern coasts are more favoured by nature than the southern and western; towards the Atlantic ocean, the mountains are not so steep, a rich verdure decks the vallies, and some useful animals are found in the woods and pastures. The Yacanus,^h or indigenous inhabitants, are of a middling size; their dress is made of the skins of sea-calves, but the people are so dirty, that travellers can with difficulty distinguish the colour of their skin. The natives near Good Success Bay are less savage than their neighbours.

The Malouine islands, called formerly by English geographers, Hawkins' Maidenland, and at present the Falkland Islands, are about seventy-six leagues north-east from Staten Land and a hundred and ten eastward of the Straits of Magellan. The two largest islands are separated from each other by a broad channel, called by the Spaniards the straits of San Carlos, but better known in England by the name of Falkland's channel. Pernetty and Bougainville are of opinion that these islands were discovered between the years 1700 and 1708, by five vessels that sailed from St. Malo; hence the origin of their French name. But Frezier, in the account of his voyage to the South Sea, acknowledges that the English are entitled to the merit of having discovered them.ⁱ The mountains in these islands are not very lofty; the soil on the heights adjacent to the sea is composed of a dark vegetable mould; copper pyrites, yellow and red ochre, are found below the surface. Pernetty^k observed a natural amphitheatre formed by regular layers of porphyritic sand-stone. No wood grows on these islands; the Spaniards were at the trouble of bringing plants from Buenos Ayres, but their labour was vain, for every tree perished in a short time.^l The gladiolus or sword grass is very common, and rises to a great height; when seen at a distance, it has the appearance of a verdant thicket. The grass is luxuriant; celery, cresses, and other herbs, have been noticed by travellers.

^a "5 to 9 degrees of Reaumur." 43° to 52° Fahr.

^b "From 3 to 7 degrees Reaumur." 38° to 47° Fahr.

^c "Length 180 leagues"—M.B. 114 leagues long, 1 league broad in the narrowest place—*Vosgien*. More than 300 miles long, breadth varying from several leagues to less than half a league.—*Morse*.—P.

^d Narborough.

^e "Plovers, snipes, geese, and ducks, are found there in abundance; gooseberries, and the tree which produces the Winter's bark, are among the vegetable productions. At some distance, in Fresh Water Bay, Narborough saw beech and birch trees of a very large size."—M.B.

^f "The Spaniards have a station on the island of St. Martin."—M.B. See Pinkerton, v. II, p. 695.—P.

^g Burney's Collection of Voyages to the South Sea.

^h Called also the *Pecherats*.

ⁱ "They were first seen by Capt. Davis, who sailed under Sir T. Cavendish, in 1592; next by Sir Richard Hawkins, who called them Hawkins's Maidenland, in honour of Queen Elizabeth."—*Ed. Encyc.*—P.

^k Pernetty, t. I, p. 7. 65.

^l "There are no trees on the islands. The Spaniards attempted to rear them, and were even at the trouble of bringing earth from Buenos Ayres to plant them in, but without success; they all perished within the first year."—M.B.

The vegetables are not unlike those of Canada; but the *epipactis*, the *tithymalus resinus*,^a and a shrub which resembles the rosemary, resemble the plants of Chili. A great variety of seals, to which the common people have given the name of sea-lions, sea-calves, and sea-wolves, bask in the sword grass. The Spaniards brought eight hundred head of oxen to these islands in the year 1780, and they increased so rapidly that their number amounted to eight thousand in 1795.

Although the island of Georgia^b does not belong to any nation, we mention it in this place, on account of its vicinity to the Falkland Islands. It was discovered by La Roche in 1675, and afterwards explored by Captain Cook in 1775, who gave it its present name. Georgia, situated about four hundred and twenty leagues east from Cape Horn, consists of horizontal layers of black slate stone. The rocks are generally covered with ice, and no shrub can pierce through the perpetual snow that lies in the val-

leys; pimpnel, a few lichens, and some tufts of coarse grass, are all the plants that have been observed; and the lark is the only land bird which has been seen on the island.

Captain Cook discovered Sandwich Land, or the Southern Thule, at a hundred and fifty leagues to the south-east of Georgia, and in the 59th degree of south latitude. It is not improbable that other groups extend to the southern pole, and occasion perhaps the icebergs and variations in the course of currents, which have too often misled the adventurous navigator.

This conjecture is rendered more probable by the discovery, which was made by Mr. Smith about the year 1820, of New South Shetland, and a small chain of islands as yet without a name in latitude 62°. That part of New South Shetland visited by Mr. Smith, contains little worthy of notice; the low grounds are sterile, the hills or rocks are covered with snow. The sea in its vicinity abounds with seals and other animals common to the antarctic regions.—It is now time to return to more genial climes.

^a The resinous gum plant, a species of *Euphorbia*.—P.

^b Called by the French, *Isle St. Pierre*.

BOOK XC.

THE DESCRIPTION OF AMERICA CONTINUED.

General Observations on Spanish America.

SPANISH AMERICA may be equal in extent to the Russian empire ; but that cold country contains about forty-three millions of inhabitants, while the population of the other, with all the advantages of the most delightful climate, does not exceed fifteen or sixteen millions. Of that number, Mexico contains six millions, Guatemala one and a half, Caraccas one, New Granada one and a half, Peru one and a half, Buenos Ayres two and a half, Chili, nine hundred thousand, Cuba and Porto Rico nine hundred thousand. The war which the Spaniards have carried on against the patriots, and other causes, may perhaps have retarded its progress ; but at all events, the country could easily maintain ten times its present number of inhabitants. The descendants of Europeans may be computed at four or five millions ; the Indians are much more numerous. The Mestizos and Spaniards were often at variance with the natives, and sometimes with each other.^a But the Spanish yoke was least of all tolerated by the Creoles, whose nobles, as they have been termed, were useless and oppressive to the rest of the community.^b The authority of the caciques or chiefs weighed heavily on the Indians and Mestizos, and a rich and powerful clergy increased the grievances of the inhabitants. Want of union, public spirit, and a common interest, the dispersion of the people, and their great distance from each other, tended to diminish the political and military force of a nation, in which some were distinguished for patriotism, exalted sentiments, and chivalrous valour.

The institutions of the Spanish Americans might have been greatly improved. Each burgh was governed by a cabildo or municipal council, whose jurisdiction was supreme within the boundaries over which it extended. The audiencias or sovereign courts were held in greater veneration than the viceroys ; and a president or civil governor was obeyed more readily than a captain general. The influence of the civil magistrate contributed to the welfare of the community ; but the military spirit, which has of late gained strength in the provinces, may prove hurtful to the cause of liberty.^c

The citizens of Mexico, Caraccas, Santa Fé, Lima, and other large towns, are not deficient in knowledge, but the lower orders and the country people are suffered to remain in ignorance. Public education is not conducted on proper principles, and the greater number have no means of ac-

^a "The Mestizos and the Spaniards agreed in their hostility to the natives, but were sometimes at variance with each other."—M.B.

^b "The European Spaniards were detested by the Creoles ; and even the Creole nobles were split into parties, which contended for pre-eminence."—M.B.

^c "The civil authority prevailed, as it ought to in every well regulated

quiring such information as is necessary in the present day for extending the resources of a great state. The low ebb of industry must be attributed to the habits of the people, and the confusion of a revolutionary war. Mexico, as well as Italy, boasts of its statuary and painters ; but artillery, arms, hardware, and many articles of primary utility, are imported from Europe.

If the Spanish Americans have hitherto made little progress in the useful arts, the improvement of the natives has been hardly perceptible. That race, degraded before the European invasion by the despotism of their rulers, submitted to the severest hardships under the government of the first conquerors. The Indians, or as they have been called, *the people destitute of reason*, were reduced to a state of slavery ; the destructive tendency of such a system was at last acknowledged in Spain, and it gave way to a feudal system, arranged with much ingenuity ; but the distance of the natives from their sovereign rendered it ineffectual. The country was divided into *encomiendas*, or feudal tenures, which were granted to the Spaniards under certain conditions. The *encomendero*, or liege lord, was obliged to reside in his domains, to perform military service at the will of his king, and to protect and provide for the Indians on his fief. The natives paid a stated tribute to their patron, and were in other respects free ; the superior, at least, had no title to exact any personal service from them. This sort of government, established by Charles the Fifth, and modified by his successors, was afterwards abolished.^d It did not correspond with the intentions of its founder, and was in reality of little advantage to the Indians. The feudal lord claimed more than he had any right to demand, and did less for the natives than he was bound to do by the nature of his tenure.^e The system of *repartimientos*,^f or assessment, which succeeded, proved much more disastrous. In consideration of the limited faculties and improvident character of the Indians, the corregidores or judges of districts were ordered, by the Spanish government, to provide the natives with cattle, grain for seed, implements of husbandry, clothing, and whatever else they required ; but the price of each article was fixed, and the corregidores were prohibited from taking any profit in these transactions. The abuses that resulted may be easily conceived ; they became so flagrant that Spain had again to interfere, and the new assessment was given up in 1779.^g The Indians are at present under the authority of native magistrates, but their caciques have sel-

community ; and it is only recently that the military spirit, in some of the provinces, has broke loose from this salutary restraint."—M.B.

^d It was finally abolished in the reign of Philip V.—M.B.

^e Mercurio Peruano, VIII. 47. X. 277.

^f The first conquerors attached a different meaning to the word *repartimiento*.

^g Mercurio Peruano, VIII. 47. X. 279,

dom the good qualities of the corregidores, and are not less cruel, avaricious, and partial. The natives are besides subject to statute-labour, and restrained in the enjoyment of their civil rights; these restrictions are not the same in all the provinces. It was the policy of the Spanish government to encourage the mestizos, from a belief that the indolence and inactivity of the Indians could never be overcome; but the connexion between the colonists and the mother country was by this means weakened, and the casts became more impatient of a foreign yoke.

The history of modern times proves that the formation of a vast empire is every where accompanied with unnumbered difficulties, yet it has been maintained by political writers,^a that Spain managed its American possessions with much wisdom and great prudence. We may safely venture at present to entertain a different opinion; but it will be necessary to consider more minutely the policy of Spain relative to her American possessions. To check the rapacity of official men, their number was increased; the government supposed that the crimes of a few might in this way be prevented, that the one might oppose the other, although all were equally desirous of enriching themselves. The pomp and splendour of the viceroy's court eclipsed that of Madrid; they had not, it is true, the colonial treasury, nor the military and maritime forces, at their disposal; a representative of majesty might have been punished by a court of audience for abusing his power, but such events were of rare occurrence. The principal military offices were held by captain-generals, commanders, and governors, who were not entirely subjected to the caprices of a viceroy, but depended greatly on his favour for promotion and advancement. The colonists might lay their grievances before the council of the Indies at Madrid, the president of which was the minister of the American provinces. The inhabitants of Mexico and Peru experienced both the great delay which was thus occasioned, and the council's incompetency to judge of local matters. But their remonstrances were not attended to; it was thought, indeed, that they murmured without just cause, and that their wrongs were always redressed in the capital of Spain. The cabildos, or municipal governments, the only representative institutions, were framed after the manner of those in the Castilian towns.

The financial arrangements did not increase the wealth of Spain; a fixed number of galleons, and afterwards of register vessels, had the exclusive right to trade with the colonies.—These ships received in return for European merchandise the gold and silver of the New World, which the indolent Spaniards circulated among commercial nations. The great extent of the coast, and the scanty population, rendered the Spanish guard ships^b on these stations of little use; and European traders driven from the ports returned with an ardour proportionate to the great reward obtained for commodities eagerly sought and arbitrarily prohibited. It was difficult to hinder one half of the world from holding any intercourse with the other. The precious metals were of little advantage to America, because she could not exchange them for the produce of other countries; and Spain, unable to supply the wants of her colonists, derived no great benefit from them. A system of monopoly ruined alike the oppressor and the oppressed. In 1778, Galvez, the Indian minister at Madrid, attempted to reform a great many abu-

ses; he established a free trade between thirteen of the principal ports of Spain and the American colonies; but it was his plan to prevent as much as possible every foreign nation from participating in the advantages granted to the mother country. Strangers were permitted to carry certain goods to a few sea-ports in Spain; but they were fettered with so many restrictions as were almost equivalent to a total prohibition. His system had not been long in force, before the commerce between the two countries became more extensive; more than five times the usual quantity of Spanish goods, and more than three times that of foreign goods, were exported in the course of a twelvemonth, and within the same period the returns from America were nearly doubled.

	Reals.
According to the register for 1788, the value of the articles sent from Spain, amounted to	300,717,529
The returns from America were calculated at	804,693,733
And thus the balance in favour of Spain was equal to	503,976,204

It is apparent from these documents, that the regulations of 1778, imperfect as they were, improved both the colonies and the revenue of the mother country.

	Reals.
In that year the import and export duties, levied in Spain, amounted to	6,761,291
In 1788 they amounted to	55,456,949
So that the difference in the course of ten years equalled	48,695,658

In consequence of those fortunate regulations, the contraband trade was checked by the free introduction of the different products of Spanish industry. A greater supply of wine and fruit was sent to the colonies, and Spain received in exchange productions until then unknown; such as were formerly obtained in small quantities, as coffee, sugar, and tobacco, became common and abundant. The settlers in Cuba applied themselves to the culture of the sugar cane, but it never reached that degree of perfection which might have been anticipated. It was remarked, that the communications between the two countries were much more frequent than they had ever been at any former period.

Galvez's system, however, was not free from errors. That minister, contrary to his intentions, had made the Americans anxious for independence. He was too desirous of convincing his king that an able statesman might render colonies valuable and important, which for a long time had been burdensome and expensive. By augmenting the imposts, he laid the seeds of a rebellion, which broke out in the vice-royalty of Santa Fé in the year 1781. The same causes produced afterwards a more serious revolt in Peru, which could only be quelled by the most sanguinary measures, and by the death of its intrepid chief. His grievous system of taxation was very ill timed, for much about the same period the English colonists in North America threw off the British yoke. To levy the new taxes, sixteen thousand public charges were devised, and the persons that filled them, by their salaries and mean artifices, absorbed nearly all the additional profit. South America was particularly oppressed by these burdens, and Galvez's limited knowledge of the country prevented him from improving his real sources of wealth. The minister was blamed for his exclusive partiality to the Mexicans; he had passed the

^a By Malte-Bran, in the original.—P.

^b *Guarda-costas.*

early part of his life in that vast and rich colony; it had been the theatre of his extravagance and youthful sallies; he had first evinced there his great ability and restless ambition. The advantages which that country derived from his administration extended to Spain. The Mexicans increasing in wealth and population, purchased the luxuries of the old world, and furnished new outlets for European industry. The Spaniards thought that the culture of corn was too much encouraged in that colony. It had for a long time raised a quantity of grain more than sufficient for its own consumption; at no distant period it might become the granary of South America; but it was feared if such an event were to take place, that Mexico might also become the centre of the Spanish monarchy.^a

The gold and silver mines in Mexico and Peru were imagined to be sources of inexhaustible wealth. But the working of these mines depended on a substance which was seldom found in the vast extent of Spanish America. The quantity of mercury brought from Guancavelica was inconsiderable. The quicksilver mines in the province of La Mancha in Spain yielded but a scanty supply; Galvez, by improving the method of working them, was enabled to furnish a greater quantity to the mines in Mexico. Before his time, the quantity of mercury exported annually from Spain never exceeded 1,050,106 lbs. troy. So great improvements were made during his administration, that the price of a quintal of mercury fell from eighty to forty-one piastres. In consequence of these measures, the precious metals became more common. About the year 1782, twenty-seven millions of piastres were obtained from the mines; it was supposed that they might have yielded thirty millions, had there been a sufficient quantity of mercury to enable the miners to continue their labour. But, from an error in the construction of a gallery in the quicksilver mines of La Mancha, an inundation took place and the works were destroyed. After that accident, the King of Spain concluded a treaty with the Emperor of Austria, by which it was agreed that he should receive annually, for a stipulated sum, six thousand quintals of mercury from the mines of Idria in Carniola.^b The ancients were aware of the property by which mercury combines with gold, and made use of amalgamation in gilding copper.^c Humboldt assures us that, before the discovery of America, the German miners used mercury, not only in washing auriferous earths, but also in extracting the gold disseminated in veins both in its native state and mixed with iron pyrites and grey copper ore. But the method employed in amalgamating silver ores was unknown before the year 1557. It was discovered by Bartholomeo de Medina, a Mexican miner in Pachuca.^d There are still, however, many defects in the manner of working the American mines. The galleries and other works are ill constructed; minerals very different in their qualities are generally smelted or amalgamated in the same way. The whole process, which is very tedious, might be greatly abridged; human labour is unnecessarily consumed, for it might be supplied by machinery, or even by the use of the lower animals. But the great waste of mercury is perhaps the strongest objection to the present system; it has been proved that a much less quantity would be sufficient for all the purposes of the miner. It is ascertained, from different

registers, and Humboldt admits their accuracy, that, from the year 1762 to 1781, not less than 25,124,200 lbs. troy of mercury were used at the different mines in New Spain, and that the value of that quantity of quicksilver amounted in America to more than 2,400,000*l*.^e

The duties on the precious metals have been frequently altered since the conquest of South America, and different taxes have been imposed in different mining districts. A fifth of the produce of the mines was at first exacted, but it was shortly afterwards reduced in some places to a tenth or even a twentieth part. Charles the Fifth added in the year 1552, a duty of one and a half per cent for defraying the expense of coinage, a tax which the Peruvians call the *cobos*. At a later period one tenth, in place of a fifth, was levied in Mexico and Peru. A greater privilege was granted to the Viceroyalty of Santa Fé; as gold mines were only wrought in that country, the duty on them was limited to a twentieth part of their annual produce. But the per centage on the coinage, or the *cobos*, remained the same in all the provinces. By the change made in 1777, the mean tallage on gold was reduced to three per cent, while that on silver was not less than eleven and a half.

The amount of the precious metals, which has been exported from America, and the annual produce of the mines, are not accurately known; different writers have not come to the same conclusions, and the subject has given rise to much disputation. We cannot furnish our readers with more correct statements than those of the celebrated Humboldt. It appears, from a review of the registers of customs, that the yearly value of the precious metals in Spanish America was equal to thirty-six millions of piastres; but if the contraband exportation be included, there is every reason to believe that the total sum exceeded thirty-nine millions. The subject may be more fully illustrated by the following table:—

Annual Produce of the Mines in Spanish America, at the beginning of the Nineteenth Century.

Divisions.	Gold Marcs of Castile.	Silver Marcs of Castile.	Value of Gold and Silver in Piastres.
Viceroyalty of New Spain,	7,000	2,338,220	23,000,000
Viceroyalty of Peru,	3,400	611,090	6,240,000
Captain-generalship of Chili,	12,212	29,700	2,060,000
Viceroyalty of Buenos Ayres,	2,200	481,830	4,850,000
Viceroyalty of New Granada,	20,505		2,990,000
Sum Total,	45,317	3,460,840	39,140,000

Thus the produce of the mines in Peru and the other provinces is less than that of Mexico. Humboldt believes that not only the great height of the Peruvian mines renders the working of them more difficult, but that they contain a less quantity of the precious metals than has been generally supposed. To strengthen his opinion, he compares the annual produce of the mines in the two countries.

Produce of Potosi.

	Piastres	Marcs.
From the year 1556 to 1578,	49,011,285,	5,766,033
————— 1579 — 1736,	611,399,451,	71,929,347
————— 1737 — 1789,	127,847,776,	15,040,914

^a "With his usual imprudence, Galvez had too rapidly encouraged the cultivation of corn in Mexico. More than twelve years since, (1817,) it raised enough for its own consumption, and it would have soon been in a condition to supply the whole of Spanish America. In that case, Mexico would have become the real centre of the Spanish monarchy."—M.B.

^b The quintal of mercury was sold for 52 piastres.

^c Pliny, Beckman's History of Inventions.

^d Humboldt's New Spain, book IV.

^e *Ibid.* book IV. chap. 11.

Mean Produce of each Year.

	Piastres.
During the first epoch,	2,227,782
second epoch,	3,994,258
third epoch,	2,458,606

Produce of Guanajuato.

From the year 1766 to 1803, a period of 38 years,	} piastres,	165,000,000
Piastres.		
Yearly average produce from 1766 to 1803,		4,342,105
1786 — 1803,		4,727,000
1796 — 1803,		4,913,265

Mr. Helm thinks that the small produce of the Peruvian mines may be attributed to other causes. The population of Mexico is comparatively greater than that of the other provinces, and the credit of the miners is more extensive. No royal or even private bank was established in Peru until the late revolution. The precious metals cannot be so easily transported by Vera Cruz and Havannah, as by the river La Plata. If Peru had better means of extending its commerce; if the navigation of the Amazon was opened; then, (says Mr. Helm,) four times more gold and silver might be obtained from the mines in that kingdom alone, than are now obtained from all the mines in Spanish America. The produce of the mines has of late years diminished; not more than a half or even a third part of the sum formerly exported from America has for some time past been brought into Europe. Civil wars between the Spaniards, insurrections amongst the Indians, want of mercury, and accidents occasioned by inundations, have rendered it necessary to abandon the working of the most important mines in Southern Peru, Mexico, and New Granada.

The gross revenue of Peru was calculated at about five millions of piastres; three hundred thousand were sent to Panama, fifteen thousand to Chiloe, and a considerable portion to Valdivia. If to these sums we add the expenses of the military and civil administration of Peru, it will be found that the net revenue which his Catholic majesty obtained from that part of his dominions, was not more than 500,000 piastres.^a The revenue of Potosi amounted to one million two hundred thousand piastres; but two hundred thousand were annually transmitted to Buenos Ayres. The provinces of Rio de la Plata, Chili, Caraccas, and Santa Fé, contributed little or nothing to the Spanish treasury.

The governments of Cuba, Porto-Rico, Hispaniola, the Floridas, Louisiana, Truxillo, and Manilla, received formerly from New Spain the yearly sum of three millions four hundred thousand piastres, but after deducting this sum and all the expenses of his administration, the viceroy of Mexico sent 5,000,000 annually to Madrid. The duties levied in Spain on the colonial commerce were about 2,500,000 piastres. Thus the net annual revenue which the king of Spain received from his American possessions might be estimated at eight millions of piastres, £1,600,000 sterling.

If South America has been beneficial to Europe, as a colony of Spain, it must be still more so as an independent state. The industry and commerce of a great nation, enjoying the blessings of a free constitution and a free trade, are not to be compared with the feeble efforts of men fettered by restrictions and harassed by oppression. The Indies became an appendage to the crown of Castile in the year 1513. If superior force, joined to the formality of a

legal decree, and all the solemnities of a papal grant, be sufficient to transfer dominion, then the right of Spain to these territories cannot be disputed. To diminish the chances of a revolt, a bloody war was waged against defenceless natives, and it was thought better to retain the property of a desert, than to rule over men, whose habits could not accord with the interests of their invaders. To encourage emigration, the country was styled a separate kingdom, and the Spanish monarch took the title of king of the Indies. The emperor Charles the Fifth, by an edict, dated Barcelona, 14th September, 1519, bestowed additional privileges on his subjects in America. The conclusion of this decree is remarkable: "Considering the fidelity of our vassals, and the hardships which the discoverers and settlers experienced in making their discoveries and their settlements, and in order that they may possess, with more certainty and confidence, the right of being for ever united to our royal crown; we promise and pledge our faith and royal word, in behalf of ourselves, and the kings, our successors, that their cities and settlements shall on no pretext be alienated or separated, wholly or in part, in favour of any prince, potentate, or private person; that if we or our successors shall make any gift or alienation contrary to this our express declaration, the same shall be held as null and void." Had the whole of this decree been literally interpreted, the Spanish branch of the house of Bourbon had long since forfeited every claim to its American possessions.

If a person traded with foreigners in any part of these vast regions, he was punished with death. It was unlawful to cultivate the olive or the vine, in a country admirably adapted for them by nature. The inhabitants were not only obliged to receive the luxuries, but even some of the necessaries of life from the mother country. A tenth part of the produce of cultivated lands could not satisfy the demands of a priesthood, and defray the costs of an inquisition. The system of taxation was carried to its height; marine *alcabala*, *corso*, and *consulado*, formed some of the oppressive restrictions on exports, imports, and the tonnage, clearance, and entrance of ships. The venality of offices and letters of nobility were hurtful to the morals of the people, and corrupted at its source the administration of justice. To maintain more effectually the authority of Spain among all ranks of the community, every office of importance or emolument was conferred on Spaniards. By following this plan, it was thought that the taxes might be better levied, and the colonists kept in greater subjection. The inhabitants, aware that they were excluded from preferment, submitted patiently to the government of strangers, from the period of the conquest to the time of their independence. They were eligible, according to the colonial regulations, to all places of trust; but this privilege was merely nominal, for out of four hundred viceroys that governed Spanish America, not more than four were Americans. All the captains general, with the exception of fourteen, were chosen from the Spaniards. This system was not confined to the higher commissions in the state, for we are assured that there were few Americans, even among the common clerks of public offices.^b By such a policy, Spain was enabled to retain her American provinces for a greater length of time than she would otherwise have done. It was well calculated to degrade the colonists, to enrich a few Spaniards, and to impoverish the people. But these

^a Mercurio Peruano, III. 40, 72.^b Rodney's Report on the state of South America.

were not the only grievances of which the Spanish Americans complained. In order that the colonists might more readily adhere to the mother country and the church of Rome, every system of liberal education was strictly prohibited.^a Some individuals were imprisoned for instructing the poor; others for being desirous to acquire knowledge. A learned education was confined to the study of scholastic divinity and the laws of Spain. One viceroy^b gave great offence by establishing a naval school at Buenos Ayres, and that seminary was abolished in conformity to a mandate from Madrid. Chemistry was not taught in any of the provinces, lest the inhabitants should apply the principles of that science to the improvement of the arts. The increase of population was checked in the infant state by arbitrary enactments against the admission of foreigners into these vast and fertile regions, which, at a later period, were ill and scantily peopled by convicts and criminals from the prisons of Spain. The traveller passes over extensive districts of rich but uncultivated land. Tribes of Indians have perished in working the mines, or dragged out a wretched existence in an atmosphere infected with mercury.^c Had it not been for the changes that took place in Europe subsequent to the French revolution, the same system might have still continued. Spain, by following the fortunes of France, laid open her colonies to the invasion of the English. The successes of the colonists during the war which they carried on against that people, made them think more favourably of their strength and resources. The victories of Napoleon, the abdication of Charles IV., and the imprisonment of his son, roused the Americans from their long lethargy. A sedition broke out at Venezuela so early as the year 1797, and not long afterwards many of the provinces revolted. The authority of Buonaparte, or his brother, the king of Spain, was never recognised. The South Americans refused to obey their new masters. Thus the rapid conquests of an individual in the one hemisphere, were the means of securing the freedom of the other. The successful termination of a war, which the British colonists in North America had carried on in maintaining their independence, animated and encouraged their neighbours in the south. Switzerland freed herself from the Austrian yoke; Spain lost her possessions in the low countries, because the inhabitants did not choose to submit to a better and more liberal policy than that by which the Americans had been governed. Many brave men in South America united at last in resisting tyranny, and their example enlisted thousands in the same cause. The independence of the state was declared by Congress assembled in Tucuman, in the year 1816. But the country was in reality free before that time; from the year 1810, a war had been carried on against Spain in Peru, Paraguay, and Montevideo. Although it was conducted on both sides with various success, fortune seemed to favour the arms of the Americans. It was difficult to resist men engaged in so sacred a cause, eager for liberty and impelled by enthusiasm.

In 1818, an army, consisting of the veteran and best forces of Spain, was annihilated by San Martin on the plains of Maipo. The freedom of South America has been dated from that memorable victory. The rights of the people have been purchased by their blood, by sacrificing their

wealth to the common cause, by braving the greatest dangers, by submitting to the severest hardships. The name of Spanish America was abolished by a decree of Congress. The republic of Colombia was afterwards formed;^d it comprises the ancient viceroyalty of New Granada, and the captain-generalship of Caraccas. We cannot offer many remarks either on the improvements that have taken place in these countries, or on the nature of their government, without extending our work beyond the limits prescribed to it. It may, however, be observed, that none of their political institutions have as yet been tried by the *test* of experience, that some of them are or a temporary nature, that others have been given up, or not found to answer the purposes for which they were intended.

It was deemed strange and inconsistent that there should be slaves amongst men who had done so much in the cause of freedom. They determined therefore that slavery should be abolished, whenever so great a change could be effected without endangering the safety of the state; and a law was passed by Congress on the first day of its sitting, by which all the children of slaves were declared to be free. The same assembly distinguished itself by putting an end to the mita and tribute money; these measures, besides the lasting benefits that accrued from them, had the good effect of conciliating the Indians to the independent party.

A decree in favour of a free press was passed on the 26th of October, 1811; but the exigence of affairs required that this liberty should not be abused, and the press has been hitherto encumbered with too many restrictions. The South Americans are fully aware that the instruction and moral improvement of the lower orders are the best means not only of securing but of adding to their present advantages; no people has done so much in so short a time for promoting education among every class of the community. The corporations of the principal towns superintend the management of the public schools.^e In the town of Buenos Ayres thirteen schools have been established, five of which are set apart for the benefit of the poor. The system of parochial instruction was not only adopted, but a portion of the tithes has of late been applied to that useful purpose. A great many works were prohibited by the Spaniards; every book may now be freely circulated. Among others, a New Testament in Spanish has lately appeared; thus the people have only had an opportunity of instructing themselves in religion since the time of their independence.

During the government of the Spaniards, it was lawful to arrest and imprison any of the colonists without giving them previous notice of their offence; such proceedings are now illegal. The letters of individuals can no longer be opened; a man's house afforded him formerly but little protection, "it is now declared to be inviolable."^f Monopolies are abolished, and the trial by jury is likely to be established. Strangers may be easily naturalized; but it is worthy of remark, that no Spaniard can enjoy the right of suffrage, or be eligible to any office in the state, until the independence of South America be acknowledged by Spain.

The electors are chosen by the people, and the members

^a Manifesto of the Congress of the United Provinces in South America.

^b Joaquin Pinto.

^c Manifesto of the Congress of the United Provinces in South America.

^d In the year 1821.

^e Rodney's Report, &c.

^f Col. Hall's Colombia.

of Congress are taken from the electoral assemblies. In some states the number of electors is to that of the whole population in the ratio of one to five thousand ; it has likewise been enacted, that every deputy shall at least represent fifteen thousand souls ; so that the number in Congress must depend upon that of the inhabitants. But these states are still engaged in the task of forming a permanent constitution ; in the mean time, no alteration can be made in the present one without the consent of two thirds of the members in Congress. Several improvements have in this manner been already effected. The government of Colombia, as it was fixed in 1821, consists of a senate and house of representatives. The senate is made up of thirty-two senators, or of four for each of the eight departments in the republic. The legislative authority is vested in the senate. The house of representatives is composed of members, who are returned for four years by each province, and their number is in the proportion of one to thirty thousand inhabitants.

These states had of late not only to contend against the Spaniards, but were exposed to great danger from dissensions at home ; on this account, it was thought necessary to appoint a supreme director or magistrate, not unlike the dictator of the Romans ; but it is to be feared that such a power may be incompatible with the nature of a free community. This officer is commander in chief of all the forces in the country ; he governs the navy, and is styled *liberador*, or protector of civil liberty, a title nearly the same as that assumed by Cromwell. He represents his nation in its treaties with foreign powers, and has the privilege of declaring war after having submitted to Congress the causes which render it necessary.

His superintendence extends over all the branches of the revenue ; he nominates the secretaries of war and of the treasury. The exigencies of the times may call for such an office ; but if it continue after tranquillity is restored, the commonwealth must be either nominal or cease to exist.

The geographical divisions of these republics, and their population, according to the latest accounts, are marked in the tables at the end of this chapter.

It has been asked if Spanish America possesses the means of maintaining its independence ? Nature appears to have decided this question. Where can we find countries so well defended against invasion as the greater part of the Spanish colonies ? A vast extent of territory, interspersed with hills and vallies, extends beyond a chain of mountains higher and steeper than the Alps ; and this elevated region is bounded on two sides by arid and burning deserts, or by low plains covered with impenetrable forests and barren sands.

This district, suspended as it were in the air, is a little Europe surrounded with an African belt. Health reigns throughout it, while fever and death dwell around it. If the American armies defend the ascent, where every position is in their favour, the battalions of Europe must perish without a battle.

A few years ago, Europeans invaded the plains of New

* The Spanish provinces on the continent of America have fully established their independence of the mother country. Spain now possesses only the islands of Cuba and Porto-Rico. Her continental possessions now form seven independent republics. COLOMBIA, composed of the viceroyalty of New Granada and the captain-generalship of Caraccas, is a consolidated republic, now (1828) under the dictatorship of Bolivar. MEXICO, embracing the whole of the viceroyalty of Mexico, with the state of Chiapa, for-

Granada, but at that time there were neither experienced leaders nor organized troops among the colonists ; what, however, was the fate of the vanquished ? They took refuge in the uncultivated and sultry plains of the Oronoco, harassed the Spaniards, and reconquered at last the strong holds of Caraccas, now the bulwark of Colombia. The river La Plata, which seems to open an easy entrance into the country, might prove dangerous by its sand-banks and rapid currents, to the invaders of Paragua and Tucuman. The Mexican coast, towards Europe, is inaccessible to ships of war ; and to land at Acapulco it is necessary to circumnavigate the greater part of the globe. The High Table Land is not a continuous level of easy communication between its different parts. Upper Peru is a barrier betwixt Lima and Buenos Ayres ; the defiles which separate Quito from Bogota are so many precipices, or foot-paths in the midst of snow, and the burning isthmus of Costarica divides Colombia from Guatemala.

It has been supposed that the people cannot make use of these natural advantages. The Indians, it is true, retain their wonted apathy ; the offspring of that despotism introduced by Incas and native princes, which, by a just law of retribution, facilitated the conquest and ruin of their country. A native cannot as yet be excited by any sentiments of honour, or by that love of glory, which is essential to the character of the soldier. But many in Colombia, were well fitted for the military profession ;—there Bolivar formed and disciplined the shepherds of the Llanos ;—there Paez collected his formidable horsemen, composed chiefly of negroes, or the descendants of negroes and Indians ; a race of men braver, more intelligent, and not less robust than their fathers. The chiefs and the governments have attempted to introduce a conscription, and in this way to form armies ; but M. Mollien, a recent traveller, tells us that the people are averse to the service. Volunteer corps have been formed in Buenos Ayres and other cities, but the military spirit is not prevalent in South America. If the forces were attacked by a regular army, it is likely that they would defend themselves by rapid marches, surprises, and feigned retreats ; a mode of warfare well suited to the character of the troops. The merchants and landed proprietors, two very wealthy classes of men, are perhaps more hostile to the ancient regime than the great body of the people. The agriculturalist cannot be friendly to a government that forced him to root out his vines, his tobacco, and his hemp, for the purpose of promoting the cultivation of the mother country. Trade was formerly confined to a few ports in Spain ; it extends at present to every quarter of the globe. The most obvious consequence of the late revolution, is the great reduction in the price of commodities ; several articles have fallen more than 100 per cent.

The inhabitants enjoy the blessings of plenty ; industry may be directed to every source of wealth ; private property is held sacred ; and these advantages, to which the colonists of Spain were altogether strangers, are for that very reason more prized by the citizens of the South American republics.*

merly included in Guatemala, and CENTRAL AMERICA, corresponding to the captain-generalship of Guatemala, Chiapa excepted, are confederated republics, consisting of a general government and separate state governments. The united provinces of the LA PLATA form a confederacy, in which Buenos Ayres takes the lead ; but this confederacy has been usually in a very unsettled state ; and the province of Paraguay has always remained independent, under the dictatorship of Francia. PERU forms a consolidated repub-

Estimate of the Population of the Provinces of Buenos Ayres, Cordova, Tucuman, Mendoza, and Salta, under the Names of the different Towns and Districts which send Representatives to Congress.

	By more recent estimates.		
	Excluding Indians.	Excluding Indians.	Including Indians.
Buenos Ayres	105,000	120,000	250,000
Cordova	75,000	75,000	100,000
Tucuman	45,000	45,000	unknown
Santiago del Estero	45,000	60,000	
Valle de Catamarca	36,000	40,000	
Rioja	20,000	20,000	
San Juan	34,000	34,000	
Mendoza	38,000	38,000	
San Luis	16,000	16,000	
Jujuy	25,000	25,000	
Salta	50,000	50,000	
Sum total,	489,000	523,000	

Provinces of Upper Peru.

Cochabamba	100,000	120,000	200,000
Potosi	112,000	112,000	250,000
La Plata or Charcas	112,000	112,000	175,000
La Paz			300,000
Santa Cruz de la Sierra, Mojos, and Chiquitos	120,000		150,000
Oruro			30,000
Paraguay			
Banda Oriental; and Entre Ries	50,000		

Table furnished by the Secretary of the Treasury, in pursuance of the Order of the Supreme Director of the United Provinces of South America, showing the amount of the National Revenue in 1817; the Expenditure and the Balance remaining in the Treasury at the end of the same Year.

	Dollars.	
Produce of the revenue in 1817	3,037,187	5½
Expenditure in the same year	3,003,224	4¼
Remaining in the Treasury in Cash	33,963	1½
in Deposits	6,429	2½
In Capitals placed at interest, redeemable at five per cent.	93,359	3¾
In Goods, unsettled Accounts of former years	8,554,404	2¼
Amount in property, good Accounts, Deposits, and Sums at interest	8,688,156	1¾
Real and Personal Estate of the Commonwealth	9,310,472	5½
In Advances made by the State Treasury	297,078	7¼
Balance on Accounts liquidated	759,889	7
Total of the Funds of the State	19,055,597	5¼
Debts of the State	1,438,054	0
Balance in favour of the National Fund	17,617,543	5¼

lic, governed by a president and congress at Lima. BOLIVIA, consisting of the provinces of Peru, attached to the viceroyalty of La Plata, also forms a consolidated republic, under a constitution given it by Bolivar. Chili forms a republic under a supreme director and congress, but is still in a very unsettled state. Indeed, the same remark may be made of all these republics,

*Population of Colombia.**

PROVINCES OF VENEZUELA.	
Guiana,	40,000
Cumana,	100,000
Island of Margarita,	15,000
Caraccas,	460,000
Maracaibo,	120,000
Varenas,	90,000

Total amount, 825,000

PROVINCES OF NEW GRANADA.	
Rio de la Hacha,	20,000
Santa Marta,	70,000
Carthagena,	210,000
Panama,	50,000
Caro,	40,000
Antioquia,	110,000
Pamplona,	90,000
Lacorro,	130,000
Tunja,	200,000
Cundinamarca,	190,000
Mariquita,	110,000
Popayan,	320,000
Casamare,	20,000
Quito,	500,000
Cuenca,	200,000
Guayaquil,	50,000
Loxa and Jaen,	80,000
Quixos and Macas,	40,000

Amount, 2,430,000

Statement of the Revenue of Venezuela and New Granada.

FIRST, NEW GRANADA.		Dollars.
Value of European goods, annually imported,		2,500,000
Value of exports, chiefly from Guayaquil, Panama, and the river Magdalena,		1,150,000
Cast and ingots of gold exported on account of the Spanish government, and of individuals,		2,650,000
Tithes,		800,000
Which sum supposes an annual agricultural produce of		10,000,000
<i>Revenue arising from</i>		
1. The first and fifth part of gold extracted from rivers, (abolished)	}	3,200,000
2. Produce of salt works, about 100,000 dollars,		
3. Capitation tax paid by Indians (abolished)		
4. Produce of monopolies on tobacco and spirits, (partly retained, partly abolished)		
5. Bulls of Crusade (abolished)		
6. Custom-house duties,		
7. Alcabala, or duty paid on the sale of every article of consumption, (abolished)		
8. Duty on stamp paper,		
9. Pecuniary penalties,		
10. Produce of lands belonging formerly to the king		
11. Sale of public employments, (abolished)		
SECOND, VENEZUELA.		
Annual produce of agriculture and cattle,		6,000,000
Revenue arising from the same sources as that of New Granada,		1,400,000
Monopoly of tobacco,		700,000
Sale of bulls, (abolished)		26,000
Total revenue,		2,126,000
Annual surplus, 600,000 dollars.		

and it will be fortunate if they are not finally compelled, like Colombia, to yield to the control of a dictator.—P.

* The tables relative to Colombia are taken from the work of Colonel Francis Hall.

BOOK XCI.

THE DESCRIPTION OF AMERICA CONTINUED.

Kingdom of Brazil.

THE claims of the Portuguese to their empire in America are founded on Papal edicts by no means remarkable for geographical accuracy. The Spaniards maintained that the country belonged to them by right of discovery, and complained that their territory had been invaded. The Pope tried at first to reconcile the two parties by tracing the famous line of demarcation a hundred leagues westward of the Cape Verd Islands; but whatever league we make use of in measuring this line; whether we take the marine, the Castilian,^a or the Portuguese, which is the 17th part of a degree, the kings of Portugal could never have derived from it any title to their Brazilian dominions. Brazil is marked in the maps of Pedro Nunez and Texeira too far to the east by twenty-two degrees in the first, and by twelve or thirteen in the second. The Portuguese taking advantage of this great and perhaps voluntary error, laid claim to the whole of that country. Dissatisfied, however, with the pontifical decree, they seized a favourable opportunity of obtaining from Spain still more important concessions. The treaty of Tordesillas, signed the 9th of June, 1594, established a determinate boundary at 370 leagues westward of the westernmost of the Cape Verd Islands. But in this treaty also the extent of the league was not mentioned. If we assume the Castilian, the limits do not extend to the meridian of Bahia; if the marine be taken, the line passes through Rio Janeiro; lastly, by having recourse to the Portuguese, a supposition the most favourable that can be made, the boundary may extend to the meridian of San Paulo, but it can never reach Para or the mouth of the Amazon.^b The Spaniards blamed the Portuguese for invading, in time of peace, and in contempt of solemn treaties, a great portion of Paraguay and the vast territory of the Amazons. But these acquisitions were ratified in 1778; the king of Spain then determined to fix a more accurate boundary, and declared that he would no longer suffer it to be violated with impunity. Portugal paid little attention to these threats; its soldiers took possession of a neutral territory,^c and seized upon seven villages between the rivers Uruguay and Iguacu, inhabited by the Guaranis, and whose population amounted to 12,200 souls. They next passed through the country of the Payaguas, and built the forts of New Coimbra and Albuquerque in the territory of the Chiquitos. The local authorities remonstrated against these aggressions to the viceroy of Buenos Ayres, who transmitted their complaints to the

council of the Indies at Madrid.^d The troubles occasioned since that time by the revolution in Spanish America, have enabled the Portuguese to increase their possessions. Their successive inroads may be nearly ascertained from a comparison of the old and recent maps of America; in the former, Brazil comprises only the sea coast between Para and the Rio Grande de San Pedro. The territory watered by the Amazon, the Madeira, and the Xingu, was called the country of the Amazons; the greater part of which is at present included in the government of Para. It appears from some maps published near the close of the last century, that Paraguay comprehended nearly the whole government of Matto Grosso and the western districts of San Paulo; but by modern usage, and an ordinance of the sovereign, all the Portuguese possessions in America are now denominated the kingdom of Brazil. That vast region comprehends probably two fifths of South America, or an extent of territory ten times greater than France. Its population, which does not exceed four millions, is chiefly confined to the coasts, and the mining districts.

The vague and inaccurate statements of travellers render it difficult to give a correct account of the direction and formation of the mountains in Brazil. A chain beginning northwards of Rio Janeiro near the source of the river St. Francisco, extends northwardly in a parallel direction to the coast, and comprises the Cerro das Esmeraldas, the Cerro do Frio, and others. Another, or rather the same chain, (the Parapanema,^e) follows a like course towards the south, and terminates at the mouth of the Parana or La Plata. It is steep and rugged on the side of the ocean, and its greatest elevation is not more than six thousand feet.^f This chain terminates towards the interior in an extensive plateau, which the Portuguese call the Campos Geraes. The maritime part of Brazil abounds in granite;^g the soil consists chiefly of clay covered in many places with a rich mould, and rests on a bed of granite, composed of amphibole, felspar, quartz, and mica. In the vicinity of San Paulo, the strata succeed each other in the following order; 1st, a red vegetable earth, impregnated with oxide of iron, appears on the surface, resting on an alluvial bed of sand, mixed with a large quantity of rolled pebbles; 2d, a layer of very fine clay, of various colours, but generally of a deep red, intersected with veins of sand; 3d, an alluvial stratum, strongly impregnated with iron, resting on mouldering granite, in which the felspar predo-

^a "The marine, or 20th part, and the Castilian, or 26th part of a degree."—M.B.

^b Memoria sobre la linea Divisoria, &c. M.S. by Lastarria, minister of the Indies.

^c The coast of Merim, or the Neutral Shore, between Rio Grande and Montevideo.—P.

^d Reorganizacion de las colonias orientales de la Plata. See ; . 308.

^e Parapanema is the name of only a part of the chain.—M.B.

^f "1000 toises."

^g Mawe's Travels in Brazil, *passim*.

minates over the quartz and mica ; lastly, a mass of solid granite serves for a basis. Between Rio Janeiro and Villa Rica the soil consists of a strong clay, and the rocks are composed of primitive granite, in which amphibole predominates. The mountains in Minas Geraes are formed either of ferruginous quartz, granite, or argillaceous schistus, which, when it is broken, discloses veins of soft talc and *cascalhão*, or gold gangue. The iron ore in many places is of the best quality.

The Itiapaba mountains, between Maranhao and Olinda, are the great chain on the northern coast. That extensive range consists principally of granite ; many beautiful specimens of quartz purchased at Olinda have been placed in different museums in Europe. Rocks and fragments of granite are scattered over the adjoining plains on both sides of the Amazon.

The Marcella mountains connect the maritime Cordilleras with those of the interior, from which the Parana, the Tocantins, and the Uruguay, derive their origin. The Serra Marta forms the highest part of this chain : the Great Cordillera is not entitled to its pompous name ;^a the plants of the torrid zone which grow on it prove sufficiently that its elevation is moderate.

We observe in the centre of South America the immense plains and heights of Parexis,^b covered with sand and light earth, resembling at a distance the waves of a stormy sea. The prospect is unvaried throughout the whole extent. The traveller advances towards a distant mount by a gentle but tiresome acclivity, and gains imperceptibly the summit ; another eminence then presents itself, and the face of nature is every where the same. These plains terminate towards the west in the high mountains of Parexis, which extend two hundred leagues in a north-north-west direction, and terminate at the distance of fifteen or twenty leagues from the Guapore. The Madeira, the Topayos, the Xingu, and other feeders of the Amazon, the Paraguay and its tributary streams, the Jaura, the Syputuba, and the Cuiaba, descend in different directions from this arid and unfruitful ridge.^c The most of these rivers are auriferous ; a bed of diamonds is watered by the Paraguay at its source. It is probable that the central chain consists of granite. The river Xacurutina is famed for a lake on one of its branches, that produces every year a great quantity of salt, which affords a constant pretext for war among the Indians. The salt water pits on the Jaura are situated near Salina de Almeida, a place so called from the name of the person who first employed himself in working them.

The lofty chain which begins at the sources of the Paraguay, and confines that river opposite the mouth of the Jaura, is terminated at seven leagues below it by the Morro Escalvado. Eastward of that mountain the country is marshy, and nine leagues below it the Rio Novo, which falls into the Paraguay, might be navigable, were it not for the aquatic plants that obstruct its course. In latitude 17° 33' the western banks of the Paraguay become mountainous at the commencement of the Serra da Insua, about four leagues below the principal mouth of the Porrudos, and are confined by the mountains which separate them from Gaiba. This chain, which joins that of Dourados, is called the Serra das Pedras de Amolar, because whet-stones are made of the rocks. A stream that flows below them leads

to the lake Mendiuri, the largest on the confines of the Paraguay. That river runs southward from the Dourados to the Serras of Albuquerque, which abound in limestone, and cover a square surface of ten leagues. The Paraguay turns to the east at Albuquerque, passes near its Serras, which extend to the distance of six leagues, or to the Serra do Rabicho. It then resumes its southern course to the mouth of the Taquari ; the flotillas of canoes, that trade every year between San Paulo and Cuiaba, sail along this tributary stream. Two high insulated hills front each other on the opposite sides of the Paraguay, at a league's distance below the mouth of the Mondego. The fortress of New Coimbra is built on the base of the southern acclivity, near the western bank. The confluence of the Bahia Negro, a large sheet of water on the same side, is about eleven leagues southward of Coimbra. This lake, which is six leagues in extent, receives the waters of the wide flooded plains on the south and west of the mountains of Albuquerque. It forms the boundary of the Portuguese possessions on the banks of the Paraguay. Other mountains commence near the junction of the Jaura ; some of them extend westward, but the greater number to the east. In that part of the country both banks of the Paraguay are subject to regular inundations, that cover a tract of land a hundred leagues in length, and forty in breadth, and form a vast lake, which geographers have termed the Lake of Xarayas. During this season, the high mountains and elevated land appear like so many superb islands, and the lower grounds resemble a labyrinth of lakes, bays and pools, many of which remain after the floods have subsided. At this latter period of the year, the west wind is unwholesome in Brazil.

The Serras of Amarbay stretch out in a southerly direction between the Paraguay and the Parana, and terminate southward of the river Igoatimy at the Maracayer, a mountainous ridge extending from east to west ; all the feeders of the Paraguay south of the Taquari spring from these mountains ; many other rivers proceeding from thence take a different course, and flow into the Parana ; of these, the Igoatimy is the most southerly ; its confluence is a little above the seven falls, or the wonderful cataract of the Parana. The view of that noble cataract is sublime ; the spectator observes six rainbows rising above each other, and the atmosphere near it is circumfused with vapour.

The northern coast from Maranhao to Olinda is bounded by a reef of coral resembling in many places an artificial mole. The inhabitants of Paraiba and Olinda use the coral in building their houses.^d

The coast adjoining the mouths of the Amazon and Tocantins is low and marshy, and consists of the alluvial deposits left by these rivers and the ocean ; no rocks impede the force of the billows or the tides. The concurrence of so many great streams flowing in a contrary direction to the general course of the currents and the tides, produces the Pororoca ; this extraordinary tide, which is unknown in most countries of the world, has already been described in a former part of our work.

No great river enters the ocean between Para and Pernambuco, although the Maranhao, the Rio Grande, and the Paraiba, discharge themselves into the sea, by wide mouths, bordered by alluvion. These rivers are, during

^a It follows the course of the Uruguay.—M.B.

^b *Campes Parexis*.

^c Mawe's Travels in Brazil.

^d Piso, Medicina Bras. Book I. p. 3.

the rainy season, so many torrents, which inundate the whole country; at other times their waters are absorbed by the arid soil on the inland mountains, their channels are frequently dry, and the Indians walk along them.^a No river flows into the ocean between Cape Frio and the 30th degree of south latitude. That portion of the coast is very elevated; all the streams run into the interior, and join the Parana or Uruguay, which rise from the inland mountains. The Rio Grande de San Pedro is broad near the sea, but as its course is not of great extent, its breadth must be ascribed to the lowness of the shore and the downs in the neighbourhood.

In so extensive a country as Brazil, it may be readily believed that the climate is very different in distant provinces. The marshy banks of the Amazon, and the humidity of the soil near them, render the heat of summer less intense. The storms and tempests on that river are as dangerous as those on the ocean. The Madeira, the Tocantins, the Xingu, and the St. Francisco, pass near lofty mountains, or elevated plains, and the climate in their vicinity is cool and delightful. All the fruits of Europe may be brought to perfection in the country adjoining San Paulo. The healthful temperature of that city, its situation almost under the tropic of Capricorn, its height, twelve thousand feet above the level of the sea, give it all the charms of a tropical climate, without any of the inconveniences arising from excessive heat. It appears from the observations of M. Muller, which are considered the most accurate, that the mean temperature throughout the year is from 22° to 23° of Reaumur. The range of the thermometer during the winter and summer months is greater there than in the northern provinces.^b The west wind passes over large forests or swampy plains into the interior, and is considered unhealthy. The air, from its great heat, is sometimes filled with igneous particles, which generate too frequently dangerous diseases. The unwholesome blasts are partly corrected by the aromatic plants that abound in the woods, and their fragrance is wafted throughout the country by the western breeze. The climate of the coast between Para and Olinda is not so moist as that of Guiana, but differs little from it in other respects. The rainy season begins generally in March, but some times in February, and terminates in August; and it has been proved by the observations of Maregrave, that the south-east winds prevail not only during the whole of the rainy season, but a short time before and after that period.^c The north wind continues with little interruption during the dry months; the soil of the mountains is then parched, the plants languish or decay, the nights too are colder than at any other season; and hoar frost is not uncommon. During the rest of the year, the extreme heat of the climate is tempered along the coast by refreshing sea breezes; the fields are clad in green, and nature appears every where in a state of constant activity. The sea breeze commences at sunrise, and continues during part of the night. The dews are as excessive as those in Guiana and the Antilles.

M. Dorta^d concludes from observations which he himself made, that the mean temperature of Rio Janeiro during eight months of 1781 was 71°. 65 of Fahrenheit, and that in 1782 it was 73°. 89. The rain that fell in the last of these years exceeded forty-seven inches. The

greatest quantity fell in October, and the least in July. The hygrometer indicated the highest degree of evaporation in February, and the lowest in October. There were in the course of the same year a hundred and twelve days of cloudless weather, a hundred and thirty-three in which the sky was more or less obscured by clouds, and a hundred and twenty of rain. M. Dorta adds, that there were thunder storms during seventy-seven of these days, and dense mists during forty-three. The dreadful thunder storms in these latitudes never occur in Europe, and it is difficult for us to form adequate notions of them. The observations of Dorta differ little from those made on the island of St. Catharine's by Don Pernetty, who complains much of the fogs to which the island was subject in his time. "The forests," says he, "excluded the sun's rays, and perpetual mists were formed on the heights around them. The unhealthiness of the air was not much diminished by the aromatic plants, although their fragrance extended to the distance of several leagues from the land." Modern travellers, and particularly M. Krusenstern, extol the climate and salubrity of St. Catharine's. The change must have proceeded from the cultivation of the soil, and the cutting of the woods. Mr. Mansa indeed confirms the truth of this remark, for he tells us that good timber is at present not very common on the island.

The diseases to which the colonists of Brazil were subject in the time of Piso, appear to have been the same as those at present in Guiana; but the leprosy and elephantiasis were then unknown. The maladies now most prevalent at Rio Janeiro, are chronical diarrhoea, dropsy, intermitting fever, and hydrocele. In this, as in other warm climates, the augmentation of external stimulants, particularly heat and light, proves unfavourable to the health of the European; these stimulants occasion the excitement of the animal functions, and produce their consequent exhaustion. "During the day," says Dr. Von Spix, "when I was in a state of repose, my pulse beat quicker in Brazil than it usually did in Europe." Although it is ascertained that syphilis was not known to the aborigines of America,^e it is not less true that that disorder is at present very common in Rio Janeiro. The people on the banks of the Paraiaba are subject to goitres; but idiocy, which makes this disorder so distressing in Switzerland, is seldom combined with it in Brazil.

We shall begin our account of the Brazilian minerals with some observations on the diamond. That precious stone is found in a stratum of rounded quartzose pebbles, joined together by earthy matter of variable thickness. This covering or envelope of the diamond is termed its *cascalhão*, and the low ground on the banks of rivers, in which it is found, is equally rich in diamonds throughout its whole extent. Many well-known places are kept in reserve, while uncertain experiments are made in different districts. The value of an unworked flat on the side of a river may be calculated from the produce of the adjoining land. Mr. Mawe heard an intendant observe, that a certain piece of ground which he would in due time work, or whenever an order arrived from government for an immediate and extraordinary supply, might yield ten thousand carats of diamonds. The substances found near diamonds, and supposed to be good indications of them, are, bright iron glance, a slaty flint-like mineral of fine tex-

^a Maregrav. Hist. Nat. Brasil. ^b Spix's Travels in Brazil.
^c Maregrav. Hist. Nat. Bras. book VII. chap. 2.

^d Member of the Lisbon Academy. ^e Memorias, t. I. p. 345.

^f Spix's Travels. Humboldt's Essay on New Spain.

ture, resembling Lydian stone, black oxide of iron in great quantities, round pieces of blue quartz, yellow crystal and other minerals entirely different from those on the adjacent mountains. It is not only along the banks of rivers that the Brazilians seek for diamonds; they have been found in cavities and water courses on the summits of the most lofty mountains.^a

It has been supposed that the diamonds of Brazil are not so hard as those from the East Indies, and also that the form of the latter resembles an octahedron, and that of the former a dodecahedron. But these distinctions are disregarded by the celebrated Haüy. Lapidaries and jewellers believe that the eastern diamonds are of a *finer water*, and more valuable than those from Brazil.

The district of Cerro do Frio consists of rugged mountains, extending in a northerly direction, which are generally considered the highest in Brazil. That part termed the diamond district, is about sixteen leagues from north to south, and about eight from east to west. It was explored, for the first time, by some enterprising miners of Villa do Principe. These men went solely in quest of gold, without suspecting that there were any precious stones in the rivulets. Some diamonds, however, were collected during their excursions, and afterwards given to the governor of Villa do Principe, who declared them to be *curious bright crystals*, and used them as card counters. A few of these uncommon pebbles, for that was the name by which they were called, were brought to Lisbon, and put into the hands of the Dutch Ambassador, who received instructions to send them to Holland, then the principal mart in Europe for precious stones. The lapidaries in that country knew their real value, and their right name; and the Ambassador managed matters so well, that a commercial treaty was concluded between the two states a short time after the king was informed that diamonds had been found in his Brazilian possessions. The weight of these precious stones imported into Europe during the first twenty years subsequent to their discovery, is said to have exceeded a thousand ounces. Such a supply did not fail to diminish their value; many of them were sent to India, the only country from which they had been formerly exported, and obtained a better market there than in Europe. Cerro do Frio has few attractions for settlers; there is no wood, and even no plants in many parts of it; sterile mountains and desert plains convince the traveller that he is in the diamond district.^b

From the year 1801 to 1806, the expenses attending the works, amounted to 204,000*l.*, and the diamonds sent to the treasury at Rio de Janeiro, weighed 115,675 carats. The produce of the gold washings and mines during the same period, amounted to 17,300*l.* From these results it appears that the diamonds actually cost government thirty-three shillings and ninepence^c per carat. These years were remarkably productive; the weight of the diamonds received annually by government is seldom more than two thousand carats. The contraband trade has been carried on to a very great extent; there is every reason to believe that the diamonds imported in this way into Europe, have amounted in value to more than two millions sterling; but as their exportation is attended with much

risk, many of them are privately circulated throughout Brazil, and received instead of money.

The Portuguese government remained ignorant of many places which abounded in diamonds; a great quantity was collected on the Tibigi, which waters the plain of Corritiva, in Cuiaba, and in other parts of the country, without the knowledge of the public authorities.^d

These precious stones differ very much in size; some do not weigh the fifth part of a grain; two or three of seventeen to twenty carats are seldom found in the course of a year. A long time has elapsed since the negroes found any equal to thirty carats.^e If a slave be so fortunate as to find one of an *oclave*, (seventeen carats and a half,) he is crowned with flowers, and carried in procession to the *administrador*, who purchases him from his owner, and gives him his freedom.

Severe laws enacted at different times did not restrain men from engaging in the illicit traffic of diamonds. Any one convicted of selling these stones, had his whole property confiscated, and was condemned to perpetual exile in Africa, or to pass the rest of his days in a loathsome dungeon.

Topazes of different colours are found in Brazil, and it is probable that they are often confounded with other precious stones; the ordinary colour is yellow, but white, blue, aqua-marine, and other varieties, are collected along the sides of the streams in Minas Novas, northeast of Tejuco. There is, besides, a particular sort, of which one side is blue, and the other transparent and colourless. The veins at Capao consist of friable earthy talc, quartz, and large crystals of specular iron ore; but the topazes there appear to be broken; they have only one pyramid, are rarely found attached to quartz, and even in these instances, the quartz is always fractured and out of its original position. The miners told Mr. Mawe that they had sometimes seen green topazes; but that traveller supposes that they had been led into this mistake from observing euclase among these minerals; at all events, a green topaz has never been sent into Europe. That traveller takes no notice of the Brazilian ruby, a mineral which has been generally believed to be the same as the topaz; it is certain that the yellow topazes of that country may be tinged with a rosy hue by being strongly heated in a crucible.^f The Brazilian chrysoberyl is susceptible of the finest polish; these gems are seldom met with in Europe; they are much prized and better known in America.

M. Cornara, a pupil of the celebrated Werner, tells us, that there are gold mines in the middle ridge of mountains,^g beginning in the neighbourhood of San Paulo and Villa Rica, and extending to the banks of the river Ytenes. But these mines have not as yet been worked, and all the gold exported from Brazil has been taken from the rivers that rise from the central mountains. Jaragua, famed for its treasures during the seventeenth century, and regarded at that time as the Peru of Brazil, is situated about five leagues to the south-west of San Paulo. The soil is red, ferruginous, and very deep in many places; it rests on rocks of granite and gneiss, mixed with amphibole and mica. The gold lies in a stratum of *cascahào*, or pebbles and gravel, incumbent on the solid rock.

^a Mawe's Travels in Brazil, p. 227

^b Mawe's Travels in Brazil.

^c "8 deniers."

^d Actes de la Société d'Histoire Naturelle de Paris, t. I. p. 78.

^e Mawe, p. 57.

^f Haüy, t. II. p. 305. Encyclopédie Méthod. Arts et Métiers, t. II. part I. p. 46.

^g "Plateau central."

The *faiscadones*, or gold washers, make excavations in the vallies watered by rivers or streams. Some of their works are more than a hundred feet in width, and twenty in depth. Gold is collected below the roots of the grass on many hills, in which there is sufficient water to supply the washings. The metal varies very much in the size of its grains; some are so minute that, if the water be agitated, they float on the surface; it is also found in crystals, and sometimes, though not often, in large masses.

The *faiscadones* choose their washings near a gentle current; and for this reason, that part of a river is preferred where it makes a bend or winding. The large stones and upper layers of sand are first removed, and the *cascalhão* is then taken up in *gamellas* or bowls. A bowl-full is washed by a single man in less than a quarter of an hour, and it yields, on an average, about a shilling and fourpence worth of gold. All the gold obtained from the different mines, or rather washings, in the country, must be brought to the royal smelting-house.

A fifth part is set aside as the king's portion, before any gold can be melted. The bars when cut are put into the hands of the assayer, (*ensaiador*), who determines their weight and fineness. The value of the bar being ascertained and registered, the Brazilian and Portuguese arms, the number of the register, the mark of the smelting-house, the date of the year, and the degree of fineness, are stamped upon it. After the proprietor has submitted to all these forms, he receives a printed ticket, stating the weight of the gold, its value in rees, and the quantity deducted for the royal treasure. Without this instrument, the bar cannot legally pass as the current coin of the realm. It appears from different documents, that seventy or eighty *arobas*^a of gold were annually smelted at Villa Rica; but the produce of these washings is not nearly so great at present. Humboldt supposes that it does not exceed in value five millions of piastres.^b

The present government, dreading the encroachments of its priests, has declared it unlawful for monks to build convents, or even to reside in Minas Geraes, lest they should in time make themselves masters of the mines.

Other metals are found in Brazil; iron ore is obtained in great quantities, and the village of Yapemema owes its origin to the extensive mines of magnetic iron-stone in Araasojava, an adjoining mountain. It is only lately that these mines have been wrought, and the manner of working them is still very defective; if a better method of refining the ore were adopted, and the means of communication facilitated, Yapemema might not only supply Brazil, but even the whole of the American continent, with that useful metal. Several fine specimens of Brazilian native copper have been sent to Lisbon; most of them were collected in a valley near Cachoeira, about fifteen leagues from Bahia; ^c one of these pieces is said to weigh two thousand six hundred and sixteen pounds. The inhabitants complain that there is little salt in this country of gold and diamonds; its scarcity and exorbitant price have tended to retard the improvement of the colony. A quantity of salt sufficient to cure an ox, costs more than three times the price usually given for that animal; on this account, the oxen that are killed for the sake of their hides, become too

often the prey of wild beasts. As this calamity must be attributed to the caprice of man, it is the more to be regretted; nature, indeed, has been bountiful to the Brazilians; plenty of sea salt might be obtained in this vast kingdom; vessels might be loaded with it at Baya, near Cabo Frio, and near Cabo San Roque; but individuals are prohibited from selling that article, lest they should injure the oppressive monopoly of a company. The great scarcity is most severely felt in the mining districts; the mules and other animals employed in the works do not take sufficient sustenance unless salt be mixed with their food. If agriculture has hitherto made little progress in Brazil, it must be partly attributed to the excessive duties on salt; the farmer is thus prevented from breeding cattle, for he cannot maintain them without it; an additional tax of twopence per pound is levied on salt, before it can pass into the mining districts, or in other words, it is dearest in the places in which it is most necessary. The earth is impregnated with salt in some parts of Brazil, and we are assured that a great many wild animals and immense herds of oxen flock instinctively to these places. But this is not the only substance with which Brazil is ill supplied. An author, a native of the country, affirms that there is no lime-stone, and that all the lime which is made from shells is usually of an inferior quality.^d The first part of this remark is incorrect. Mr. Mawe observed plenty of excellent limestone near Sorocaba, in the well-wooded district of Gorosuara. That traveller was the first who observed limestone in the gold mines near Santa Rita; the adjoining hills are composed of it, and the plains are incrustated with a stratum of tufa, deposited by the overflowing of rivers after heavy rains. Limestone has also been found near Sabara in Minas Geraes. A rich vein of lead ore in calcareous spar was discovered at a few leagues from the Abaite, a river in Minas Novas; nitrate of potash is produced in great abundance on the extensive calcareous strata of Monte Rodrigo, between the Rio dos Velhos and the Parana.^e

The vegetable, as well as the mineral productions of Brazil, are imperfectly known. It appears from the works of Piso and Marcgrave, that the Flora of the northern provinces resembles that of Guiana; according to the observations of a learned traveller, at present in Rio Janeiro, the same analogy extends to the southern districts,^f and many of the plants mentioned by Aublet are found there. The most numerous families are the *Compositæ*, the *Leguminosæ*, the *Euphorbiacæ*, and the *Rubiaceæ*; there is a considerable number of *Aroideæ* and ferns, and the *Cyperoideæ* are more numerous than the *Gramineæ*. Some of the salicornias, which have been lately discovered, yield a great quantity of soda. M. de Saint Hilaire informs us that of twenty different plants that were collected in Benguela and Angola in Africa, there was only one which he could not find in the vicinity of Rio Janeiro.^g The coasts are covered with mangroves, which are for the most part common to the tropical countries of both continents. The *Rhizophora mangle*, L. is worthy of notice; its seeds begin to shoot before they are detached from the tree, and the roots descend until they strike into the ground; thus a thick grove is sometimes formed from a single plant.

^a A weight of about 31 lbs.

^b "The produce of the gold mines has been valued at five and a half millions of piastres. Humboldt estimates it at one fifth less."—M.B.

^c "M. Link saw, at Lisbon, in the cabinet of Ajuda, a piece of native

copper, found in a valley, two Portuguese leagues from Cachoeira, and 14 from Baja. Its weight was 2616 pounds."—M.B.

^d Da Acunha de Coutinho, X. 7.

^e Mawe, *passim*.

^f Lettre de M. Auguste de Saint Hilaire, MS.

^g *Ibid*.

The numerous palms in this country may be seen at a short distance from the shore; several are even more lofty and majestic than those in India. The *Cocos butyracea* is cultivated by the inhabitants on account of its butter, which can only be obtained when the temperature of the atmosphere is lower than twenty degrees of Reaumur; if the weather be warmer, it is dissolved into oil. The leaves of the cabbage palm are nutritive and agreeable to the taste. The coppice wood on the hills near the bay of Rio Janeiro consists mostly of *crotons*. The *Bignonia leucorylon* flowers several times in the course of the year, and the country-people suppose that rain may be expected shortly after its blossoms appear. The Brazilian myrtle is distinguished at a distance by its silver coloured bark. The *Icica heptaphylla*, and the *Copaifera officinalis*, are valuable on account of their precious resins. The *Jacas*, the *Jaboticaba*, and *Gormichama*, are different fruits, belonging to the family of myrtles; although the inhabitants of Rio Janeiro eat these fruits, strangers dislike their resinous and bitterish taste. The *Morea northiana* has been transplanted in the gardens of Europe; it was discovered by Sir Joseph Banks, when he touched at Rio Janeiro in company with Captain Cook. A beautiful shrub with dazzling red flowers was called the *Bougainvillia Brasiliensis* by Commerson, to perpetuate the name of his illustrious commander. The *Lecythis ollaria* grows in the woods of S. João Baptista, and reaches generally to the height of a hundred feet; the branches on its summit are covered in summer with rose-coloured leaves, and white blossoms. Its nuts are as large as a cannon ball; they are enclosed in a loose covering, from which the seeds fall out, when the fruit is sufficiently ripe; it is not always safe to remain in the woods during a storm, for on these occasions many of the nuts fall to the ground. The Indians are fond of the seed; they sometimes eat them raw, and when roasted they serve as a substitute for bread. The forests are incumbered with parasitical plants; strings of the leafless milky bind-weed descending from the highest trees twine round their trunks, and gradually destroy them. Other plants of the same nature, as the *Passiflora laurifolia*, are remarkable for the beauty of their flowers.

A Portuguese writer^a affirms that no country possesses so excellent wood for ship-building as Brazil. "All our ship-builders," he adds, "are aware of the superior quality of the tapinham, the peroba, the Brazilian pine, the cherry tree, the cedar, the wild cinnamon tree, the guerrama, and the jequetiba. Some of these woods resist the action of water, others that of the atmosphere; and the olive, as well as the pine, are well adapted for masts." Many of the trees arrive at an extraordinary height, but they are exposed to a thousand dangers; their roots, extending along the surface, never sink deep into the earth; a strong breeze often prostrates them, and a tree rarely falls without destroying many others. La Condamine^b takes notice of the canoes formerly used by the Carmelite missionaries on the Amazon. He measured one that was made from a single tree, and found it to be about thirty feet in length, and four or five in breadth.^c Rocca Pitta makes mention of these canoes in his history of Portuguese America; their diameter was about sixteen or eighteen palms, they had on each side from twenty to twenty-four oars, and were loaded with five or six hundred tons of sugar.^d

Different kinds of wood are exported to Europe; the royal navy of Portugal is built of Brazilian timber. The trade of Bahia, and several other sea ports, consists partly in ship building. The inhabitants not only supply the whole of Portugal with trading vessels, but sell them to the English. A merchant ship may be had in Brazil for half the sum that it costs in England.

This country exhibits an endless variety and profusion in its productions, which form a striking contrast to the constant poverty of species, that distinguishes the forests of the north. But it cannot be denied, that these tropical plants are subject to a more rapid dissolution than those in our own countries; they arrive sooner at maturity, and sooner decay. None of the trees reach that old age to which they attain in colder climates; the changes from life to death pass in quicker succession. Many causes contribute in producing this effect; even the rich and fertile soil appears unable to furnish sufficient nourishment to its unnumbered productions. Plants with such exuberance of life impede each other's progress; it often happens that trees, after reaching a considerable height, are checked by the counteracting force of more powerful neighbours. The finest trees suddenly decay, are eaten by ants or other insects, and fall at last to the ground. If a regular system of forest cultivation takes place in these thinly peopled woods, it will for a long period be less necessary to plant trees than to remove them from each other.

Many of the plants in Brazil are used in dyeing. There are three kinds of the famous Brazil wood, the Brazil *mirim*, the Brazil *rozado*, and the Braziletto. The first is considered the best, the second has received its name from its rosy hue, the third is not so valuable as the other two. A decoction of Brazil *mirim* is of a rich purple colour, and it is rendered black by being mixed with vitriol and lime. The dyer's lichen, and other plants of the same nature, grow throughout the country, but they are most common in Minas Geraes, and at no distant period they may prove a valuable acquisition to commerce and the arts.

Cassada or mandioca is the principal nourishment of the inhabitants; yams, rice, maize, and wheat, are cultivated, but agriculture is still in its infancy. Mr. Mawe states, as a proof of the fertility of the soil, that the average return of Indian corn is as two hundred to one; each plant of mandioca produces from six to twelve pounds of bread. The marobi, an indigenous plant, yields a great quantity of oil. The low grounds abound in melons, pumpkins, and bananas; lemons, guavas, and different kinds of oranges, grow along the coast. The mangaba tree is only observed in the vicinity of Bahia, and the inhabitants of that district make an agreeable beverage of its fruit. The province of St. Vincent is famed for its pine apples, and the fruit of the *ibipitanga* tree resembles the cherry.

The culture of sugar, coffee, cotton, and indigo, has of late years made considerable progress; but the famous Brazilian tobacco is only raised in the district of Cachoeira, which is about fifteen leagues from Bahia. That district is very extensive, but its inhabitants do not consider the culture of tobacco so profitable as that of cotton.

The banks of the Madeira, the Xingu, and the Tocantins, are covered in many places with immense forests of

^a Da Acunha de Coutinho's Essay on the commerce of Portugal.

^b La Condamine, Voyage à la Rivière des Amazones, p. 91.

^c "90 palms long, and 10½ broad."

^d America Portuguesa, Book I. No. 58, 59.

cacao trees, and the tendrils of the vanilla are seen clinging like ivy round the highest branches. This country produces different sorts of pepper, and among others, the *Capsicum frutescens*; also the wild cinnamon tree, and the Brazilian cassia. Many plants are useful in medicine; some species in the family of *compositæ* are said to be specifics against the bite of serpents; of these, the *Mkania guaco* is considered the best. The ipecacuanha plant grows in the greater part of the Sierra do Mar; it is gathered by Indians and negro slaves during the whole of the year, but principally after the rainy season, for the roots are then more easily pulled, on account of the softness of the ground.

The jaguar, the tapir, the pecari, the agouti, and many other animals in Brazil, are common to Peru, Paraguay, and Guiana; but some are not found in those countries, and of this sort are different kinds of *Simia*. The *Simia rosalia* has been confounded with the *Simia pithecia*, although they do not resemble each other. Brazil is the only part of the American continent in which the *titi* or *Simia jacchus*, L. has been seen. The *Simia apella*, and the *Simia adipus*, the last of which is the smallest species of the ape, are indigenous to the country. There are also several species of bats; the *Vespertilio soricinus*, and vampire bat, are the most dangerous; the latter is a formidable enemy to horses, mules, and oxen; when it attacks them during the night, it fixes generally on the jugular vein, and is supposed to lull the pain of its bite by flapping its wings all the time it sucks the blood. Two species of sloths, the *ai* and *unai*,^a or the *Bradypus tridactylus*, and *didactylus*, are not uncommon in some parts of the country. Linnæus imagined that the last of these was indigenous to the East Indies, but buffon has proved that it has been only observed in South America. The gayest butterflies proclaim the return of summer; the blue shining Menelaus, the Nestor, the Adonis, and Laertes, wander in the woods, or group together on the cool banks of rivers.

The Brazilian birds are distinguished for the variety and splendour of their plumage. Red, blue, and green parrots frequent the tops of the trees. The *jaccos*, the *hocos*, and different kinds of pigeons, haunt the woods. The orioles resort to the orange groves, and their sentinels, stationed at a distance, announce with a screaming noise the approach of man. Chattering manakins mislead the hunter, and the metallic tones of the Uraponga resound through the forest, like the strokes of a hammer on an anvil. The toucan (*Anser Americanus*) is prized for its feathers, which are of a lemon and bright red colour, with transversal black stripes reaching to the extremities of its wings. The different species of humming birds are more numerous in Brazil than in any other country of America. One sort of these beautiful little birds is called by the people the *Gnanllé engerà*, or winged flower. Naturalists have observed in the woods more than ten species of wild bees; many of which produce honey of an aromatic flavour. If the inhabitants were more industrious, cochineal might be exported with profit, for the *Cactus coccinellifer*, and the insect peculiar to it, are found in the province of San Paulo.^b Mr. Mawe observed on the coast of St. Catharine's, a species of murex that the natives call *purpura*; its shell is about the size of

a nut, the dye is contained in a vesicle full of a pale yellow viscid substance, which on being exposed to the air, is changed into a rich crimson colour.

Brazil is divided into nine governments, independent of each other; that of Rio Janeiro is the first in dignity and importance; it still retains the title of Viceroyalty, although the country can no longer be considered a colony of Portugal. The increase of population rendered it necessary to form ten *secondary* governments, which were subject to the others; but the most populous of these governments are not at present subordinate to any of the rest.

Governments.

Rio Janeiro,	Viceroyalty of.
Para,	On the Amazon.
Maranham,	}	On the eastern coast.
Pernambuco,		.	.	.	.	.
Bahia,		.	.	.	.	.
San Paulo,	}	In the interior.
Mattogrosso,		.	.	.	.	.
Goyaz,		.	.	.	.	.
Minas Geraes,		.	.	.	.	.

Dependencies.

Rio Grande,	}	.	.	.	.	Subject to Rio Janeiro.
Saint Catharine's,		.	.	.	.
Espiritu Santo,	}	.	.	.	.	Bahia.
Sergippe,		.	.	.	.
Seara,		.	.	.	.	Pernambuco. ^c
Paraiba,	}	.	.	.	.	Maranham.
Piauhy,		.	.	.	.
Rio Negro, ^d}	}	.	.	.	.	Para.
Macapa,		.	.	.	.
Rio Grande do Norte,		.	.	.	.

The governments are called *Capitanias*, or Captaincies, by the Portuguese.

The primate of Brazil^e holds the highest ecclesiastical office in the state; the dignitaries next in order are the bishops of Belem in Para, of Maranham, of Olinda in Pernambuco, of Rio Janeiro, of San Paulo, and of Mariana in Minas Geraes. The *Prelacias* of Goyaz and Cuiaba, are dioceses without chapters, committed to the charge of bishops *in partibus*. Although government has not expended much money on churches, its economy in this respect has been abundantly supplied by pious donations, and legacies bequeathed for holy purposes.

Two supreme courts, or *relações*, have been established for the administration of justice; the one at Bahia, the other at Rio Janeiro. Para, Maranham, Pernambuco, Goyaz, and Bahia, are under the jurisdiction of the first; Rio Janeiro, Minas Geraes, Mattogrosso, and San Paulo, are subject to the last. The governors of Bahia and Rio Janeiro are *ex officio* presidents of the courts.

Brazil is also divided into the following twenty-four *comarcas*, in each of which there is an *Ouvidor*, whose decisions may be passed under review, and rescinded by the supreme tribunals.

Alagoas.	Mattogrosso.	Rio Janeiro.
Bahia.	Para.	Rio Negro.
Cerro do Frio.	Paraiba.	Sabara.
Espiritu Santo.	Pernagua.	Santa Catharina.
Goyaz.	Pernambuco.	San Paulo.
Jacobina.	Piauhy.	Seara.
Ilheos.	Porto Seguro.	Sergipe del Rey.
Maranham.	Rio dos Mortes.	Villa Rica.

^a *Unau*.—Cuvier.

^b Spix's Travels.

^c Seara and Paraiba are independent as to their civil jurisdiction, but under the authority of the military governor of Pernambuco.

^d Rio Negro is under the civil jurisdiction of Para, but independent of its military governor.

^e The archbishop of Bahia.

We shall first give an account of the government of Rio Janeiro, in which the capital of the same name is situated. This city has been called Saint Sebastian by some writers, from the name of a fortress on a headland at no great distance from the town. The hills in the neighbourhood are adorned with houses, churches, and convents. Its harbour is excellent, and is defended by the castle of Santa Cruz, built on a rock of granite. The entrance of the bay that forms the harbour, is confined by several islands, on some of which, store-houses and ship-yards have been erected. This large and beautiful bay is a great ornament to the town; its calm and transparent waters reflect on all sides the images of steep rocks, thick forests, churches, and houses.^a The most remarkable public buildings in Rio Janeiro, are the convents of St. Antonio and St. Theresa, the ancient College of the Jesuits, and the church of *Nossa Senhora da Gloria*. The town is supplied with water by means of a splendid aqueduct; many labourers are employed in the rum and sugar works, or in preparing cochineal. The whole population, before the arrival of the prince, amounted to 50,000 souls; the greater number consisted of blacks and people of colour: at a later period, in the year 1817, the city and suburbs contained 110,000 inhabitants. This extraordinary afflux of Portuguese and other settlers, must in a great measure be attributed to the residence of the court.

Although the town is well stored with provisions, their price is by no means proportionate to their great abundance. The low position of Rio Janeiro, as well as the uncleanness of its streets, rendered it formerly unhealthy, and vessels loaded with negroes, often spread contagious disorders among the people; but these evils have been partly removed by the establishment of a more efficient police. This town is the place of the greatest trade in the kingdom; its situation is favourable for its commercial relations with Europe, Africa, the East Indies, and the islands in the Great Ocean. It might become, under an enlightened administration, a general mart for the produce of the most distant countries. Its exports consist of cotton, sugar, rum, hides, tallow, indigo, and coarse cottons, naval timber, ornamental and dying woods, gold, diamonds, topazes, and other precious stones. Those who maintain that the inhabitants are inactive, effeminate, without energy, patriotism, or public spirit, appear to have forgotten that such defects in their character must be attributed to a bad government, and to a colonial administration, which lasted for two hundred years.

Rio Grande is the most southern captaincy in Brazil. It is watered by many rivers; their banks are well wooded, and some of them are rich in gold. Coal pits are wrought in the neighbourhood of the chief town in this province; wolfrain, which has been found in considerable quantities, indicates the existence of tin. Numerous flocks of ostriches wander in the plains, and the forests abound with different kinds of game. The climate is so favourable to agriculture, and the soil is so productive, that, if a better system of farming were established, Rio Grande might soon become the granary of the whole kingdom. Wheat is put into hides, and sent to all the ports on the coast; but it is often in a state of fermentation before it reaches the more distant towns. The hemp formerly cultivated in this department by order of government, was said to be of the

best quality, but from the high price of wages, this branch of labour did not yield sufficient profit, and was for that reason abandoned. The vine grows in luxuriance, and it is likely that more attention will be paid to its cultivation, as the colonial restrictions are now removed. The chief occupation of the inhabitants consists in breeding cattle, for which the immense tracts of pasture in this district are well adapted. The people carry on a trade in tallow, dressed hides, and salted provisions.^b

Rio Grande, the chief town in this captaincy, is well fortified and defended by forts built on small islands. The shallowness of the sea, the violence of its currents, and a great many quicksands, render the harbour dangerous for vessels that draw more than ten feet of water; but within the bar there is a deep bay, where the largest ships may ride with safety.^c The population on the banks of the Rio Grande is greater than in any other part of the province: a circuit of twenty leagues is supposed to contain a hundred thousand inhabitants. The country near the capital is surrounded by hills of sand and light earth, and it sometimes happens, during a strong wind, that the whole city is darkened by clouds of sand.

The scenery in the island of St. Catharine's is embellished by its steep and conical rocks, and the wood-covered mountains on the neighbouring continent. The island is separated from the mainland by a narrow strait, and interspersed with hills, dales and marshes. The solstitial heats are tempered by refreshing breezes from the southwest and northeast; the latter continue from September to March, the former from April to August. St. Catharine's was at one time covered with lofty trees, but the most of them have been cut down and used in ship-building. The hills and rocks are composed of granite; but there is near the harbour a vein of greenstone, passing through various states of decomposition into a fine red clay, from which different sorts of earthenware are manufactured, and exported to La Plata and Rio Janeiro. Although the soil in the interior is humid, it is also very fertile, and an extraordinary profusion of flowers indicates a genial climate: the jessamine and the rose are in bloom throughout the year.

The entrance of the harbour is defended by two forts; and the population of the town exceeds six thousand souls. It is situated on a verdant plain, shaded by orange and lemon trees. The island is divided into four parishes, *Nossa Senhora do Desterro*, St. Antonio, Laguna, and *Ribeirao*. The places on the adjacent continent, under the government of St. Catharine, are St. Jose, St. Miguel, and *Nossa Senhora do Rosario*. The small harbour of Peripi, with its numerous fisheries, and the delightful valley of *Picada*, thickly studded with white cottages, in the midst of orange groves and coffee plantations, are situated near the mountains opposite the island. This plain, and others contiguous to it, form the boundaries of the territory possessed by the Portuguese: the *Anthropophagi*, or *Bugres*, dwell beyond it. These savages dwell in the woods, in huts made of palm branches, and interwoven with bananas: they destroy sometimes whole families of the settlers. The contending parties are regardless of humanity, and wholly bent on a war of extermination.^d To the north-east of these plains is situated, on a bay of the same name, the port of San Francisco, whose inhabitants are chiefly em

^a Langstedt's Voyage.

^b "Tallow, dried flesh, (jerked beef,) and hides."

^c Mawe's Travels.

^d *Ibid.*

ployed in ship-building. The wood there is so strong, and holds the iron so firmly, that ships built there are held in greater value by the Spaniards and Portuguese, than those made in Europe. The neighbouring country is flat, and the rivers that intersect it, may be navigated by canoes to the base of a chain of mountains more than four thousand feet above the level of the sea. A road has been made across that lofty ridge: the great difficulties attending such an undertaking having been surmounted, in a country ill provided with labourers. The national importance and usefulness of this work cannot be doubted; the fertile plains of Corritiva, the finest perhaps in the world, are thus connected with the ocean; goods may be conveyed by a gradual ascent from the base of these mountains to Corritiva, a distance of twenty leagues. Rio Janeiro and San Paulo are supplied with cattle from the numerous herds on this fertile tract; the best mules in Brazil are bred on it, and the horses there are considered superior to any in Spanish America.

The harbour of Santos is sheltered by the island of St. Vincent; currents, eddies, and the variability of the winds, occasioned by the mountains in the vicinity, render it difficult of access. The town is low, unhealthy, and exposed to much rain. The best rice in Brazil is raised in the district, which is equally noted for the excellence of its bananas. The towns of Santos and San Paulo were founded by those who escaped from the first shipwreck near the island of St. Vincent. The population of Santos, which is the mart of the extensive province of San Paulo, is at present more than seven thousand souls. A paved road has been made from Santos to San Paulo; it is cut in many places through solid rocks, and in others along the edge of precipices, which are fenced by parapets, otherwise the traveller might be in danger of falling into an impervious thicket more than thirty yards below him. Some fine springs, issuing from their high sources, form romantic cascades in the midst of detached rocks. In these places the nature of the rocks can be ascertained; they appear to consist of granite and soft ferruginous sand stone: everywhere else the mountains are covered with thick woods; even on the road branches of trees meet and form arches, that defend the traveller from the rain, and shelter him from the sun's heat. Mr. Mawe remained a short time at a resting place half way up the ascent; the view of the country through which he passed was obstructed by the clouds beneath him. After a journey of three hours he reached the summit, an extensive plain, of which the lowest elevation has been calculated at six thousand feet above the level of the sea; it is chiefly composed of quartz, and in many places covered with sand. The sea, although twenty miles distant, seems to wash the base of the mountains; Santos and the level part of the coast do not fall within the angle of vision. About a mile and a half from the summit, we observe several small streams flowing in a southwest direction, and forming by their union the great river Corrientes, which joins the La Plata. The course of these streams may in some measure serve to explain the form of this lofty ridge; the highest and steepest side fronts the sea; the other slopes gradually towards the plains in the interior.^a

The city of San Paulo is situated on an eminence, in the wide plain of Piratininga; the hill on which it stands is

surrounded on three sides by meadow-land, and washed at its base by several streams. These rivulets flow into the river Tieti, which passes within a mile of the town. The climate of San Paulo is one of the most delightful in the world. It has been ascertained by the repeated observations of M. Muller, that the mean temperature of the year varies from 22° to 23° of Reaumur.^b The houses consist of two stories, and are built of clay, which is pressed between two rows of strong posts or wicker work. The Episcopal palace, and the convent of the Carmelites, are the finest buildings in the town. The streets are broad and clean; this last advantage is owing to the elevation of the city above the adjacent plain. The pavement is made of grit-stone mixed with large pebbles of quartz, cemented together by oxide of iron; these stones are of an alluvial formation, and contain gold, which is sometimes found in small quantities by the common people, who seek eagerly for it after heavy rains. According to the latest accounts, the population of San Paulo, with its dependent parishes, amounts to 30,000 inhabitants, and the greater number are people of colour. It appears, from a series of official reports, that the whole province contained, in the year 1808, 200,478 souls; in 1814, 211,928, and in 1815, 215,021. The results deduced from these tables relatively to the proportion of births are remarkable; the ratio is as one to twenty-one individuals. In European countries one birth is reckoned for twenty-eight individuals; and the highest known proportions are supposed to be one to 22.7 in some villages near Paris, and one to 23.5 in some Dutch burghs. The deaths in San Paulo are, to the population, as one to forty-six; a less ratio than in most other countries, but not so extraordinary as that of the births.

It was not until the gold washings were nearly exhausted, that the inhabitants thought of cultivating the ground. The neglected state of their productive lands indicates the little progress that they have made in agriculture. The Paulistas are more famed for adorning their gardens than for managing their farms; in the capital and its vicinity, the gardens are laid out with much taste. The *Palma Christi* yields so much *oleum ricini*,^c that it is generally burnt as lamp oil in San Paulo. The men in this province are active and patient of fatigue, and the women are renowned for their beauty; cheerful and good humoured, they are more like the French ladies than those in Spain. The term Paulista is considered a compliment, even when it is applied to the women of San Paulo; for the Paulistas are celebrated throughout Brazil for their personal attractions. The remote position of the province, the great difficulty of travelling in that district, and the illiberal policy of government with respect to strangers, are probably the reasons of its being so seldom visited. It has been said that the arrival of a foreigner in the chief town of this government, is a matter of wonder to the Paulistas themselves. This circumstance may enable us to account for many false statements concerning the barbarism and ignoble origin of the inhabitants. These stories, founded at best on the suspicious testimony of the jesuits of Paraguay, have been completely refuted by a Portuguese writer,^d who has detected the inconsistencies of Vaissette and Charlevoix, who maintained that San Paulo was peopled by Spanish and Portuguese malefactors, by mestizoes, and mulattoes, that fled thither for safety from all parts of Brazil. The

^a Mawe, p. 64.

^b "The mean temperature varies from 50° to 80° Fahr."

^c Castor oil.

^d Fr. Gaspar da Madre de Deos.

same writer proves that the first settlers were jesuits and Indians, and that the city, from its earliest foundation, never acknowledged any other sovereign than that of Portugal. The national character of the Paulistas tends to confirm his statements; they have ever been distinguished for their loyalty and humanity.^a Of all the Brazilian colonists, they were formerly most renowned for that enterprising spirit which once rendered the Portuguese illustrious among the nations of Europe. Their love of travelling, and the hope of discovering the treasures in the new world, prevented them from cultivating their fertile country. They visited almost every part of Brazil; they crossed lofty mountains and forests until then deemed impassable. They were not checked by rivers, deserts, or savages who waged continual war against them. The richest mines in Brazil were discovered by the Paulistas; they left them with regret, and yielded them reluctantly to the authority of the government. The safety of western Brazil depends on the energy of this people. Had not their cavalry spread the terror of its arms from Paraguay to Peru, the efforts of the Portuguese troops had been of little avail during the colonial war in 1770.

The three petty governments of Espiritu Santo, Porto Seguro, and Ilheos, contain little that is worthy of our notice. The town of Porto Seguro is built on the summit of a rock, at the mouth of a river; its harbour is sheltered on all sides by steep coral rocks, and the Abrolhos is a dangerous reef at no great distance from the coast.^b

Behind these three districts is the extensive province of Minas Geraes, which is separated from the coast and Espiritu Santo by a lofty chain of mountains. The population of Minas Geraes has been stated at half a million;^c the inhabitants, like those in most mining districts, have paid little attention to agriculture, and other useful arts. A manufactory of bad earthen ware has been established at a league's distance from a tract of land which abounds in the finest potter's clay. The different grains and fruits of Europe require little cultivation to reward the labours of the husbandman; the grape yields a delicious wine, but the people in the gold and diamond districts drink water and neglect their vineyards. The cattle are turned out on the open tracts, and left to subsist on whatever they can find; in the summer months, when the grass throughout the wide extent is withered and burnt, they flock to the margins of brooks; but this resource soon fails them, and vast numbers perish from hunger. The forests in this province are still unexplored, and the uses to which the trees might be applied are consequently unknown. Many of them are well adapted for dyeing and tanning; but the inhabitants are averse to employments of this nature, and these arts have hitherto made little progress. Gum *Adraganth* abounds in this district, and of the best quality. The sugar cane grows in a wild state; the roads are covered with arcades, formed by its branches, which reach in many places to the height of thirty feet.

Minas Geraes is divided into the following *comarcas*: San Joao do Rey, Sabara, Villa Rica, and Cerro do Frio. San Joao do Rey is better cultivated than any of the rest, and it is for that reason called the granary of the province. The actual state of Villa Rica forms a striking contrast to its pompous name. It is built on two hills on the banks of the Rio do Carmo, which runs between the lofty Itacol-

mi and the Morro de Villa Rica. The city has of late years been improved; it is supplied with good water by means of fourteen wells, and adorned with many fountains. The principal street along the declivity of the Morro is about half a league in length; the others are irregularly built and ill paved. The climate of Villa Rica has been much praised; it is not, from its elevated situation, exposed to excessive heat. The thermometer seldom reaches above 82° in the shade, and falls rarely below 48°; its usual range is from 64° to 80° in summer, and from 54° to 70° in winter. The population of Villa Rica amounts to 20,000 souls, and the inhabitants are chiefly employed in commerce; its artisans are celebrated throughout Brazil; but to prevent government from being defrauded, and for the better security of the royal fifths, the trade of a goldsmith has been strictly prohibited. The road from this place to San Paulo passes by way of San Joao do Rey; that to Bahia by Minas Novas; a third has been made to Paracuta, and two others to Goyaz and Matto-Grosso by Tejuco and Malhada; but none of them is so much frequented as the one to Rio Janeiro, which is seventy miles distant.^d Mariana is a neatly built town on the banks of the Rio do Carmo, about three leagues from Villa Rica; it is chiefly peopled by miners, and contains six or seven thousand inhabitants. A royal mint has been erected in the small town of Villa do Principe, on the confines of Cerro do Frio. No traveller is permitted to enter the town until he has submitted to a very tedious examination at the custom-house. Not many years past, a muleteer was overtaken on the road to Rio Janeiro by two dragoons, who made him surrender his fowling-piece, in which he had concealed three hundred carats of diamonds. This man had communicated his secret to a person who betrayed him for the sake of a paltry reward; for this crime the poor muleteer was condemned to pass the rest of his life in a loathsome prison, among felons and murderers. Tejuco, the residence of the intendand-general of the diamond mines, is situated in an unfruitful district; its provisions are brought from a distance, and sold for a high price. The inhabitants are poor, and many of them depend solely for a subsistence on the charity of their neighbours. The gold and diamonds found in the district are conveyed every month to the treasury. The agents and clerks of government live in affluence, while the people can hardly provide themselves with the necessaries of life.

The *Capitania* of Goyaz is bounded by Minas Geraes on the east, Matto-Grosso on the west, and Para on the north. This fine district, on account of its inland situation, is seldom visited; its rivers are well stocked with fish, and its woods abound with game. But it is thinly peopled, and its inhabitants are scattered over a great extent of territory. Some of the mines are rich in gold; but the diamonds, although larger, are not of so pure a water as those in Cerro do Frio. Cotton is cultivated near the frontiers, and exported to Rio Janeiro, with other articles of less importance. This province communicates with Matto-Grosso, S. Paulo, and Para, by several rivers which, though broken by cataracts, are navigable in many places. Villa Boa, the capital of the district, is built in a low situation on the banks of the Vermelho; all the gold obtained from the mines in Goyaz is permuted at the smelting house in this city.

^a Mawe, p. 87.

^b Lindley's Voyage.

^c "330,000 inhabitants, of which 200,000 are people of colour."—M.R.

35,000 whites, 26,000 Indians, and 108,000 slaves. Total, 169,000.—*Ed. Encyc.* ^d Spix's Travels.

The government of Bahia stretches along the coast. It is bounded on the north by the river St. Francisco, and separated from Ilheos by the Rio das Cantas. It has received its name from *Bahia de todos os Santos*, or All Saints Bay. The soil, consisting for the most part of a rich vegetable mould, is watered by many streams, and well adapted for the cultivation of the sugar-cane. A greater quantity of sugar is shipped from Bahia than from all the other provinces in Brazil. This district is also famous for its tobacco, which is exported not only into Portugal, but into Spain and the South American states: there was at one time a great demand for it throughout the whole of Barbary, and it was found difficult to carry on a trade in gold and ivory on the coast of Guinea without this plant. The other productions of the province are coffee, rice, which has increased in value since the use of mills has been known in these districts, and the beautiful dyewood, or Brazilletto, which is equal to any that grows in Pernambuco. The indigo manufactured in Bahia is much inferior to that imported from the east; the plant, from which it is extracted, is of a deleterious nature, and the negroes employed in preparing its leaves are generally unhealthy.

San Salvador de Bahia, or Cidade de Bahia, is situated on the eastern side of All Saints Bay; it is nearly four miles in length from north to south. The lower part of the town is considered unhealthy, and inhabited chiefly by mechanics and tradesmen. The higher part, or residence of the wealthy, is about six hundred feet above the level of the sea.^a The population of the town is not accurately known; it has been estimated by some writers at 70,000, and by others at 110,000 souls. Mr. Henderson supposes that the negroes amount to about two thirds of the inhabitants.^b The city is well built, its fortifications and arsenal have been improved, warehouses and wharves are erected along the shore. The chief occupation of the people consists in ship-building, and for this purpose a great quantity of timber is brought from the interior. The town is better supplied with provisions than Rio Janeiro; oranges, water-melons, pine-apples, and different sorts of fruit, are plentiful throughout the district. The excessive heat of the climate is moderated by the sea breeze, and in some measure by the absence of the sun; for the nights are nearly equal in length during the year. The imprudent conduct of a governor enabled the Dutch to make themselves masters of this town, which was recovered by a chivalrous crusade under the direction of the Bishop Texeira.^c The Batavian troops, who had subdued the whole country from Maranham to the river St. Francisco, were here repulsed. The Dutch derived much wealth from their Brazilian conquests; the exports in the course of one year amounted to 218,000 chests of sugar, and 2,593,630 lbs. of Brazil wood. But the plan of administration and defence proposed by the famous Maurice of Nassau was rendered ineffectual by the Dutch merchants.^d

The province of Sergippe del Rey is separated from Bahia by the Rio Real, and from Pernambuco by the river St. Francisco. Its extent along the coast is ninety miles, and its greatest breadth is about a hundred and forty. The

chief town, Sergippe, or St. Christovar, is built on a rising ground near the river Paromapama, at the distance of eighteen miles from the sea. This place was destroyed by the Dutch in 1637; it contained at one time 9000 inhabitants, but its population has of late years diminished.

The government of Pernambuco is famed for its dye-wood, vanilla, cacao, rice, and sugar. But its chief commerce consists in cotton, which was for a long time considered the best in the world. Although the cultivation of this plant has been neglected, it appears from the latest returns that 80,000 bags were shipped from this province; that 60,000 were sent to Britain, and the remainder to Lisbon. The lower part of the city is built on two islands, and is called Recife, or Pernambuco; the other part, situated on an eminence at three miles distance, has received the name of Olinda.^e The population of the two towns amounts to 65,000 souls. Recife is styled the capital of the province by the Portuguese writers.

Paraiba is the metropolis of a small district of the same name, which was taken by the Dutch, who called it Fredericia, in honour of the prince of Orange. That people gave a sugar-loaf for its arms, in allusion to the great quantity of sugar obtained from the district, and in conformity to a plan then adopted for granting armorial bearings, significant of the principal leading articles in the different capitancies under their dominion. The bay in the vicinity of the town is a good road for ships, but it is difficult of entrance. Travellers assure us that there are silver mines in the neighbourhood of Tayciba, and that rock crystal has been found in the environs of San Jose de Ribamar.

Piauhy was formerly a comarca of Maranham; it is about four hundred miles from north to south, and seventy of medium breadth; gold, iron, and lead, have been discovered in this district. Elias Herkmann, a Dutch officer, wrote a journal of his residence in Piauhy; and it is to be regretted that detached parts of his narrative only remain; ^f he mentions mountains, and even plains, consisting of bright talc, and takes notice of a great many pyramids or cones, that were built by the natives.

Portuguese writers inform us that Pinson, after discovering Cape St. Augustin, entered a gulf at the mouth of a great river, (the Amazon,) and as its waters did not possess the saline properties of the ocean, he called it *mar non*, (not sea,) and at a later period the term Maranham was applied to the province, from the opinions then entertained by the Portuguese concerning the Amazon. Maranham, though of small extent, is important, from the value of its productions; many of its staple commodities are annually exported to different countries; annatto, capsicum, pimento, ginger, and the best fruits of Europe, grow in great abundance throughout the province.^g The chief town, Maranham, or St. Louis, contains about thirty thousand souls. A colony of Frenchmen, who are said to have founded the city, landed in this province about the year 1612.

The military jurisdiction of Gran Para extends over Rio Negro,^h and these two states form together the largest government in Brazil, which is nearly eight hundred miles in

^a Viajero Universal, XXI. 351.

^b Henderson's History of the Brazils.

^c P. Baulomé, Jornada dos Vassallos da Coroa de Portugal.

^d Barbeus, de Reb. Brasil.

^e The origin of this name has been thus explained. The first donatory

of the province exclaimed, when he chose the site of the town, "O que linda situaçam para fundar humar villa."—"O what a fine situation for building a town."

^f Mawe, 288.

^g Histoire des Missions des PP Capucins, 196—200

^h Rio Negro is independent of the military governor of Para, p. 331.—P

length from east to west, and upwards of four hundred at its greatest breadth. Gran Para and Rio Negro have been marked as two distinct provinces in the recent maps of Mr. Arrowsmith. The former district is unhealthy, and covered with thick woods; the dwellings of man are so thinly scattered over it, that they have been compared to islands in a vast ocean. Some of the stations established along the Amazon have been dignified with the name of cities.

Gran Para, the chief town, is sometimes called Belem, from its tutelar saint, Nossa Senhora de Belem.^a The first is its civil, the other its ecclesiastical designation. Mr. Mawe, from not paying attention to this distinction, supposed Para and Belem to be two different towns. It is situated on the eastern bank of the Tocantins, near the bay of Guagiza; the part of the river near it,^b is difficult of navigation, on account of its quicksands, shoals, and opposite currents. The population amounts to twenty thousand souls; the greater number of the inhabitants are poor and destitute of employment. Their trade consists in rice, cacao, and different drugs, which are first exported to Maranham, and afterwards to Europe. The excessive warmth of the climate is unhealthy; but the thunder storms and showers, which occur almost daily, cool the air, and render the heat less oppressive.

The government of Rio Negro, bounded by Guiana, New Granada, Quito, and Peru, is still more desolate than Gran Para; there is no town of any consequence in the district.

The Capitania of Matto-Grosso is watered on one side by the principal feeders of the Parana, and on the other by those of the Amazon. The banks of the rivers are covered with forests of wild cacao trees, and the different kinds of wood which grow in the lower part of Brazil. The hills, consisting chiefly of sand, are comparatively unfertile. Small pieces of gold are collected from the beds of rivers, and the same metal is found in greater abundance on several plains seldom visited by travellers on account of their unwholesomeness.^c The city of Cuiaba is situated on the eastern bank of a river of the same name, about two hundred and forty miles^d from its junction with the Paraguay; it contains a population of thirty thousand souls,^e and is well supplied with flesh, fish, fruits, and all sorts of vegetables. Saint Pedro del Rey is about twenty leagues southwest of Cuiaba, and its population amounts to two thousand souls.

Our remarks have hitherto been confined to the European settlements in Brazil; but there are besides many indigenous tribes, that have been designated by Portuguese writers under the general name of Anthropophagi. These savages, delighting in cruelty, became, under the government of the Jesuits, social, peaceable, and humane; the indefatigable perseverance of their missionaries surmounted the greatest obstacles. The natives are strong and well made, their complexion is copper-coloured, their hair is black and sleek. Mr. Mawe saw a native chief, and fifty of his followers, in Canta Gallo, a district northward of Rio Janeiro;^f the dress of the men consisted of a waistcoat and pair of drawers, the women wore a shift and petticoat, with a handkerchief tied round the head after the fashion of the Portuguese; the whole party seemed to be in a wretched condition, and depended chiefly for a sub-

sistence on the produce of the chase. Their skill in the use of the bow was much admired; Mr. Mawe placed some oranges at the distance of thirty yards, and they did not miss one; he next showed them a banana tree about eight inches in circumference, at the distance of forty yards, and every man struck it with his arrow. Astonished by these repeated proofs of their address, he went with some of them to the chase; they observed the birds sooner than he did; they crept with great ease through thickets and brushwood, and never failed to bring down their game. They ate their meat raw, and were not at the trouble of plucking the feathers from their wild fowl. Like most savages, they are very fond of spirituous liquors; if rum be given them, they generally quarrel about it, as each man wishes to have more than his neighbour.^g Their great aversion to labour prevents them from cultivating the ground, or from working for hire; even the gold and silver, with which their country abounds, are never sought for by the natives. The savages observed by Mr. Mawe belonged probably to the tribe of the Boticudos, who live in the eastern mountains of Minas Geraes. Although they were several times conquered, and very cruelly treated by the Paulistas, the first people that penetrated into their territory, they still maintain their independence and defend their possessions. Being unable to contend openly against the Portuguese, they have recourse to stratagem; they sometimes conceal themselves among the branches of trees, and watch an opportunity of discharging their arrows against a negro or European traveller; at other times they dig pits, fill them with pointed stakes, and cover them with twigs and leaves. After having marked out a house, and ascertained its strength, they set it on fire, and fall upon its unfortunate inhabitants while they are attempting to escape. They bear an implacable hatred against the negroes, and evince much delight in eating them; but they are terrified by fire arms, and betake themselves to flight on hearing the report of a gun. Such as are taken prisoners cannot be subdued either by stripes or kindness; many, despairing of ever being able to regain their freedom, refuse sustenance, and perish from hunger. The prince regent recently published a proclamation, commanding them to live in villages, and to become Christians; they were offered his protection if they complied, and threatened with a war of extermination in the event of their refusal.

The Puris inhabit a country in the neighbourhood of the Boticudos; they still resist the Portuguese, and an eye witness informs us, that they roast and eat their prisoners.^h The Tupis, who occupied at one time the whole of Santos and San Paulo, are now reduced to a few wandering bands, that inhabit the confines of the Spanish provinces on the Uruguay. They speak a dialect of the Guarani language, which is widely spread over all the interior and southern districts of Brazil. The Carigais, or southern neighbours of the Tupis, are considered the most peaceable of the native tribes. The country of the Tupinaquis extended from the river Guirican to the river Camama, and the Topinambos inhabited the coast between the Camama and the San Francisco do Norte; but these two tribes, and several others, are now either extinct, or mingled with the Portuguese settlers. Some travellers have

^a Viajero Universal, XX. p. 381.

^b In the original, "the mouth of the river."

^c Leblond, *Traité de la fièvre jaune*, p. 182.

^d "96 leagues."

^e "It contains, with its dependencies, a population of 30,000 souls."—M.B.

^f Mawe, p. 303.

^h *Lettres du Prince Maximilien de*

confounded with the Topinambos two or three fierce and wandering tribes on the banks of the Tocantins. The Petivares are scattered over the north-eastern districts of Brazil; many among them are partly civilized, and acquainted with agriculture. The Mológagos, a wandering tribe on the banks of the Paragúay, are remarkable for their fair complexion and lofty stature.^{a b} The tribes on the banks of the Amazon are the Pauxis, the Urubaquis, the Aycuaris, the Yomanais, and many others, whose names need not be enumerated. The Cuiabas and Buiazas occupy the central mountains of Matto-Grosso; and the Paraxis have given their name to an extensive district in South America. The Barbados, on the banks of the Syptuba, are distinguished by their long beards from the other natives of the new continent. Some of the numerous tribes formerly concentrated on the fertile banks of the Paragúay, have been dispersed or destroyed by the Spaniards, the Portuguese, or the Paulistas; others, at the approach of foreign invaders, fled into countries less favoured by nature, and several thousand natives were removed by the Jesuits to their settlements on the Uruguay and the Parana. So great a number of them have entered into alliances with the Portuguese and Spaniards, that there is hardly a man on the frontiers whose countenance does not indicate the traces of his Indian descent. The Guaycoros, or Indian horsemen, are renowned for their strength and courage among the aborigines, on the banks of the Paragúay. They occupy both sides of the river, from the Taquari and the mountains of Albuquerque to a distance of a hundred leagues. Armed with bows and long lances, they wage war against the Spaniards and Portuguese; and although often defeated in battle, they have never been completely subdued. The Guaycoros make excursions into the neighbouring countries for the purpose of procuring horses in exchange for coarse cotton goods, which they themselves manufacture.

The inhabitants of many countries in South America form a remarkable exception to the famous system of the influence of climate on the physical character of man. A feeble and peaceful people dwelt on the cold mountains of Peru; a hardy and warlike race wandered under the burning sun of Brazil. Their enemies, notwithstanding the great advantage which they have derived from the use of fire arms, cannot boast of having subdued them. They have never been vanquished by raw or undisciplined troops, and the cause of their defeat has been attributed to dissensions amongst themselves, and to their ignorance of European warfare.^c "The province St. Vincent," say the Portuguese writers, "was conquered by the famous Tebireza, that of Bahia by the valiant Toebira,^d and that of Pernambuco by Stagiba, whose name in the Indian language signifies an arm of iron. We have gained Para and Maranhão by the efforts of the famous Tomagia^e and the invincible Camarao, who immortalized himself at the retaking of Pernambuco, in the war against the Dutch."

^a Viajero Universal, XXI. 324.

^b "The Mológagos, on the river Paraíba do Norte, resemble the Germans by their lofty stature."—M.B.

^c J. Stadius, Hist. Brasil, part I. chap. 19 & 42.

^d Vasconcellos, Histoire du Brésil, liv. III. p. 101. 357.

^e Erriid. Annaes Hist. do Estado do Maranhão.

^f Stadius, part II. chap. 29.

^g Lery, chap. 23.

^h "It appears to present two or three detached relations with the languages of Africa and the South Sea islanders; but we can assert, that it

The Brazilian Indians are chiefly distinguished for their bravery and bodily strength; when suffering excruciating pain, they brave their tormentors, and boast that they may take away their lives, but that they never can deprive them of their courage.^f Lery and his companions could not stretch the bows used by the Indians of Tamoy, in the neighbourhood of Rio de Janeiro, and the same writer confesses that he was obliged to use all his strength in stretching a bow which belonged to a boy about ten years of age.^g The inhabitants of Ouctacazes, one of the most fertile districts in the government of Rio de Janeiro, are so valiant that, according to the statement of a Portuguese writer, they suffer death rather than endure the disgrace of being vanquished; they have never been defeated by the Brazilians, nor even by the Europeans; they consider slavery an intolerable evil. These savages, at one time formidable enemies of the colonists, have proved themselves of late years faithful allies to the settlers in the province of *Campos dos Ouctacazes*, in Minas Geraes. The natives have resisted the arms, but submitted to the mild and generous policy of the Portuguese.

The Guarani, or, as many writers term it, the Brazilian language, is the one most generally known by the natives. Its different dialects are spoken by different tribes; and its primitives are unlike any of Asiatic origin. Some have affirmed that there is a resemblance between it and certain dialects spoken by the South Sea islanders; but it is agreed on all hands, that no American language has so little analogy with any other known tongue.^h The syntax of its particles, moods, and tenses, is very different from that of European languages. It has two affirmative and two negative conjugations, and its active and neuter verbs are not conjugated in the same manner. A great number of adverbs, or rather syllables placed at the end of words, serve to mark different shades of meaning.^{i k} Many substantives express the definition or sense attached to them, thus, *Tupa*, or God, signifies literally, Who is he? The word *couna*, or woman, resembles the *kona* of the Scandinavians; but this analogy is of no consequence, for the proper meaning of *couna* is a nimble tongue. However widely diffused this language may be, it does not extend over the whole of Brazil; the learned Hervas has proved, from the manuscripts of the Portuguese jesuits, that there were fifty-one tribes in the central and northern parts of that country, whose dialects were not formed from the Guarani language; and he has likewise traced a resemblance between some of these dialects, and those spoken by the Caribs.^l

We should wish to close our imperfect description of Brazil, a country so little known, with some accurate statements concerning the political resources of this new empire; but the materials requisite for such a task are still incomplete, and likely to remain so under the present government; the Portuguese monarchy in Europe has been changed into a despotism in Brazil.^m The power of

has, on the whole, less affinity with any known language, than any other language of the American continent."—M.B.

ⁱ Arte da Grammatica da lingua do Brasil, composta pelo P. Figueroa, fourth edition, Lisbon, 1795.

^k "An astonishing number of adverbs, or rather of intercalated syllables (*syllables intercalatives*), serve to modify and lengthen the verbs."—M.B.

^l Hervas, Catalogo delle lingue, p. 26, et seq. —29.

^m Brazil is at present an independent empire, under the government of Pedro I. eldest son of the late king of Portugal. Although the government may be considered despotic in fact, yet it has nominally a constitution and legislature.—P.

the crown is not balanced by any other authority ; and as the influence of public opinion does not exist, the acts of government are for the most part unknown. It is supposed that Brazil contains three millions eight hundred thousand inhabitants ; and that the European settlers amount to one million.^a The Portuguese possessions in the East Indies, (Goa and Macao,) those on the eastern and western coasts of Africa, the islands in the Gulf of Guinea, the Cape Verd islands, Madeira, and the Azores, may contain at most about six hundred thousand souls. The population of Portugal amounts to three millions and a half, to which if we add that of the other states, it will make that of the whole monarchy nearly equal to eight millions. The inhabitants of this extensive empire are divided into several masses, and farther weakened by the influence of a feudal nobility, and an ignorant priesthood. The merchants of Lisbon, Oporto, Bahia, and Rio Janeiro, from their frequent intercourse with foreigners, are better informed than the other classes of society ; they enjoy, besides, the protection of a government, whose policy does not consist in oppressing those that enrich it. But the Portuguese in Europe and Brazil entertain very different notions concerning the future fate of their monarchy ; the court, deprived of its palaces, theatres, and all the pleasures of European refinement, is ill lodged in convents or country houses, and longs for its residence on the banks of the Tagus. The project, which appeared practicable to some speculative philosophers, after the transatlantic emigration of the house of Braganza, has been abandoned ; and the court is regardless of founding an empire, or civilizing a hemisphere. A few enlightened Brazilians wish that the prince may reside in their country, but they are more anxious that the influence of public opinion may have its due weight ; that, for this purpose a national assembly be established, and that all the monopolies which check the industry of their countrymen may be abolished. Government, on the other hand, opposes all measures tending to benefit the people, if it imagine that its revenues are likely to be injured by them. In the hope of increasing its wealth, emigration has been encouraged, and different sects have been tolerated ; but we are assu-

red by many well informed emigrants, that the constitution affords them little protection, and that their wrongs are not redressed by the judicial authorities. Science, literature, and the fine arts, are unknown ; commerce and agriculture are the only roads to wealth. The administration of justice is imperfect and complicated ; laws yield to the power of the nobles, and the vassals of an absolute prince rule the people as despotically as their sovereign. Baronial rights entitle certain classes to many privileges, which the rest of the community do not possess. It appears, from the most accurate statements, that the total revenue of the Portuguese monarchy amounts to 3,800,000*l.*^b and nearly the half of this sum is obtained from Brazil by means of royal fifths, tithes, and custom-house duties. The mulattoes are placed nearly on the same footing with the European settlers ; they are eligible to civil and ecclesiastical preferments, and their number is rapidly increasing. The condition of the negroes has been improved ; but these slaves, so far from adding to the political strength of the monarchy, tend rather to weaken it ; many of them are employed as sailors, but this practice is dangerous, as they are apt to mutiny ; the air of the ocean inspires them with a love of liberty. The numerous trading vessels are protected by a fleet of about twelve ships of war, and by thirty or forty frigates.^c The Portuguese army consists of seventy thousand men, and about thirty thousand are stationed in widely distant garrisons, to guard the extensive frontiers of Brazil. The troops in Europe served under the Duke of Wellington and Marshal Beresford ; but it is doubtful if they have been improved by such advantages ; it is fortunate for mankind, that the strength of armies varies so much in despotic governments. This country, independently of its military resources, might be a great state, both on account of its maritime position, and the extent and fertility of its soil ; its population, like that of Russia or the United States, might be doubled in a few years ; but before this can be effected, Brazil must have a Czar Peter or a free constitution.

^a The population of Brazil, in 1822, was 5,306,418.—P.

^b "90,000,000 francs."

^c "10 or 12 ships of the line, and about 30 frigates and brigs."—M.B.

BOOK XCII.

THE DESCRIPTION OF AMERICA CONTINUED.

Guiana.

GUIANA, or Guyana,^a derives its name from a tributary stream of the Oronoco, and is bounded on the south by the Amazon, on the west by the Rio Negro, and on the north and north-west by the Oronoco and Atlantic ocean.^b The coast, from its lowness, is subject in many places to inundations; the land, at the distance of several leagues from the sea, is deluged by the tides. The sailor loses sight of the capes or promontories at a short way from the shore; but ships can approach them without danger, for the distance may be ascertained with sufficient accuracy by means of the sounding line. The turbid appearance of the sea is owing to the great quantity of alluvial matter borne down by rivers. The mangrove grows on the low grounds in which the sea water remains stagnant; several fens or marshes, occasioned by the inundations of rivers, are covered with reeds, that afford shelter to the cayman and different sorts of water fowl. These marshes, as well as the open and dry meadows, of which the pasture is excellent,^c are commonly called savannas. The sand and shells, with which the soil is mixed, indicate its origin; the sea at every inundation leaves a deposit; heights are thus raised along the coast, and the ocean makes a barrier for itself, that must one day put a stop to its inroads.^d After sand or ooze has been thrown on the shore, the red mangroves make their appearance; at a later period mounds of sand are successively formed; and, as the water is thus intercepted, the plants wither and decay; but it is difficult to account for the formation of hills in the midst of these marshes, unless we suppose that they have been islands added to the continent by continued alluvial deposits. At from four to ten leagues from the sea, we meet with primitive mountains, consisting of granite, quartz, and schistus. No calcareous rocks have hitherto been observed in Guiana. The hills near the shore are generally parallel to the coast; as the course of rivers is thus impeded, many waterfalls are formed, which vary in height from twenty to fifty feet. The highest inland mountains are not more than 1800 feet^e above the level of the sea.^f They are not situated precisely at the point of division between the waters that flow into the ocean and those that flow into the

Amazon, but are farther north than the sources of the former.

The broad and shallow mouths of the principal rivers, the Oyapok, the Maroni, the Surinam, and the Essequibo, must be attributed to the lightness of the soil, and the lowness of the ground. None of the numerous cataracts are lofty; there are eight on the Oyapok, within the distance of twenty leagues; those of the Maroni are less frequent but more majestic; no fewer than thirty-nine falls very near each other have been counted on the Essequibo. Cascades of this description are not confined to these rivers; they are observed on the Demerary, the Berbice, the Corentin, the Sinamari, and the Aruari,^g which last was for some years the boundary between the French and Portuguese possessions.^h

The dry season lasts, in Cayenne, from the end of July to November, and the rainy season corresponds with the winter months in Europe; but the most violent rains fall in January and February. The weather is dry and agreeable during the month of March and the beginning of May; this period has for that reason been denominated the short summer. The whole of April, and the latter part of May, are subject to continued rains.ⁱ The climate of Guiana is not liable to the excessive heat of the East Indies, Senegambia, or the Antilles. At Cayenne the centigrade thermometer never rises above 28 degrees in the course of the dry season, and reaches rarely 24° during the rainy months;^k the climate of Surinam is still milder. M. Cotte supposes that the greatest mean heat does not exceed 25° 8', and calculates the mean temperature of the year at 20°.^l The refreshing influence of the north winds during the rainy season, and of the east or south-east winds during the dry months, is felt throughout the whole of Guiana. These winds, cooled by passing over a vast extent of ocean, render the atmosphere less sultry and the heat less oppressive. Europeans affirm that the morning and evening breezes are cold in many parts of the interior.^m The climate varies in different districts; Cayenne is less subject to rains than the country watered by the Oyapok. The summer and winter, or rainy and dry seasons, begin in Surinam about two months later

^a "Guyane ou Guayane," Guiana or Guayana.

^b "It is bounded on the south, west, and north, by the Amazon, Rio Negro, Cassiquari, and Oronoco; and on the north and north-east by the Atlantic." It is thus completely insulated.—P.

^c Bajon, Mémoires sur Cayenne. Pinkard's Notes on the West Indies. Leblond, Description abrégée de la Guyane Française.

^d Laborde, Journal de Physique, 1773, t. I. p. 461, &c.

^e "300 toises."

^f Bajon, Mémoires, t. I. p. 11. Leblond, Traité de la Fievre jaune. Leblond, Description abrégée, p. 55. 59.

^g Arawary.

^h By the peace of 1801, the river Arawary was established as the boundary between French and Portuguese Guiana.—P.

ⁱ The long wet season begins about the middle of April, and ceases in September, when the short dry season commences, and continues until the middle of November. Then comes the short wet season, which lasts until the middle of January, when the long dry season commences, and terminates in the middle of April.—Ed. *Encyc.*—P.

^k Reaumur's thermometer, at Cayenne, rises to 28° in the dry season, and to 24° in the rainy season.—M.B.

^l Cotte, Mémoire de Météorologie.

^m Reaumur.—M.B.

ⁿ Bajon, t. I. p. 2.

than in Cayenne ; Mr. Stedman believes that the duration of the seasons has not been ascertained, and that the time of their succession is as variable as in any country of Europe.

As to the salubrity of the country, Guiana has perhaps been thought more unhealthy than it really is. It cannot be denied that it possesses the disadvantages of a warm and rainy climate, and of being covered with thick woods and uncultivated lands.^a Settlers are liable, on their arrival, to malignant and intermittent fevers ; and it has been supposed, that the cutting down of the woods is unfavourable to the health of the colonists. The sun develops in these places the miasms exhaled from putrid vegetable matter heaped together for ages. But this danger, if it really exist, cannot, at all events, be of long duration. The tertian and quartan agues,^b so common in this country, are not considered dangerous ; epidemic diseases are very rare, and the small-pox is at present unknown.

Guiana is subject to annual inundations ; all the rivers, swollen by continued rains, overflow their banks ; forests, trees, shrubs, and parasitical plants, seem to float on the water, and the sea, tinged with yellow clay, adds its billows to the fresh water streams. Quadrupeds are forced to take refuge on the highest trees ; large lizards, *agoutis* and *pecaris*, quit their watery dens and remain on the branches. Aquatic birds spring upon the trees to avoid the caymans and serpents that infest the temporary lakes. The fish forsake their ordinary food, and live on the fruits and berries of the shrubs through which they swim ; the crab is found upon trees, and the oyster multiplies in the forest. The Indian, who surveys from his canoe this new chaos, this confusion of earth and sea, suspends his hammock on an elevated branch, and sleeps without fear in the midst of so great danger.

It is well known that the trees which bear fruit during the whole of the year in this country, yield more abundant crops in particular seasons, as the orange, the lemon, the guava, the laurus perseæ,^c the sapota, the amiona, and others, which grow only in cultivated lands. The trees in the woods, and all those in a wild state, bear fruit but once a year, and the greater number of them at a season that corresponds with our spring ; the most remarkable of these trees are the grenadilla, and different species of palms. The mango and other East Indian plants thrive in Guiana ; but the fruits of Europe, with the exception of the grape, the fig, and pomegranate, are not adapted to the climate. The first European settlers observed in this country three species of the coffee tree, the *Coffea guyanensis*, *Coffea paniculata*, and *Coffea occidentalis* ; a fourth kind from Arabia was afterwards added by the colonists. Many aromatic plants were imported by the earlier settlers ; the country produces, in abundance, cloves, cinnamon, and different sorts of pepper.^d The cocoa tree grows spontaneously on the east of the Oyapok ; indigo and vanilla are indigenous to the soil ; manioc and cassava are considered the best alimentary plants ; the sweet potato, the yam, two kinds of millet, and the tayove, are also very nutritive.

Guiana is famed for its medicinal plants ; it supplies Europe with quassia, or the wood of Surinam. The *Dolichos pruriens*, the *Palma Christi*, a species of ipecacuanha, the *Costus Arabicus*, the *Copaifera officinalis*, and many others, are mentioned in the memoirs of Bajon and Aublet. Leblond, a celebrated traveller and botanist, tells us that the cinchona does not grow in Guiana ; as this plant has generally been observed in mountainous districts, the low plains on the confines^e may be unfavourable to its growth. The most active vegetable poisons are found in the forests ; the *duncane* occasions instant death ; although most of the lower animals avoid instinctively what is fatal to their existence, it has been ascertained that sheep and oxen are fond of this shrub.^f The Indians dip their arrows in a decoction of the bark of the woorara tree. Mr. Stedman takes notice of their destructive weapons, and tells us that a negro woman, whose skin had been grazed by one of these arrows, expired in a short time, and that her infant, though not wounded, lost its life from sucking her breast.

Some of the trees, as the bananas and mangroves, are so soft and porous as to be unfit for every useful purpose. The *andera*, the *bulata*, and *ouatapa*, are susceptible of a fine polish, but it is very difficult to cut them with any instrument, on account of their excessive hardness. The ferole, or satin wood, the licaria, which, before it attains its full growth, is sometimes called rose wood, and afterwards falsely described as a different tree under the name of sassafras,^h two kinds of icica, the berk back, the mahogany and cuppy trees, may be easily worked. The forests of Guiana abound in varied and romantic scenery ; the lofty *Panax monotoni*, and the *Bignonia copaia*, grow to the height of eighty or a hundred feet ; different species of *rubiaceæ*, the *arracocerra*, and *arnotia*, diffuse an aromatic fragrance throughout the woods. The parasitical plants render the forests impassable in many places ; their tendrils are seen on the summits of the highest trees, and their flowers conceal or obscure the foliage.ⁱ Many useful and curious plants might be added to those already mentioned ; the *simira* yields a rich crimson dye ; the largest canoes in the country are made of the wild cotton tree ; the leaves of the parassalla are comparatively little injured from the action of the air, and a single tree affords sufficient materials for the roof of a cottage.

The quadrupeds of Guiana are the same as those of Brazil and Paraguay. Bajon states, that the jaguar is smaller in this country than in any other part of America ; he adds, that it can bring an ox to the ground, but that it is afraid of man, and never ventures to attack him.^k Stedman, on the other hand, observes, that these animals sometimes carry off negro women, and too frequently their children, while they are working in the fields. The *couguar*, or red tiger of Surinam, is less than the jaguar, but resembles it in its habits, and is equally ferocious. The tiger-cat is a very beautiful animal of the same class ; it is not much larger than the common cat, and of a yellow colour with annulated black spots ; like the rest of its kind, it is lively, mischievous, and untameable. It is evident,

^a Leblond, *Traité de la Fievre jaune*.

^b "Tertian and double tertian."—M.B.

^c Advocate pear, *avogato*.

^d Aublet, *Plantes de la Guyane*, t. I. p. 21.

^e "The clove, the cinnamon, and the nutmeg, have been successfully cultivated. The country produces several kinds of pepper."

^f "The low plains which surround and insulate Guiana"—the country on the Oronoko and Amazon.—P.

^g Stedman.

^h Aublet, t. II. article *Licaria*.

ⁱ Aublet, t. I. p. 172.

^k Bajon, t. II. p. 178.

from Stedman's account of the jaguarette, that he supposes it to be different from the jaguar; but this opinion is contrary to the common one, and to that of the most celebrated naturalists, who consider the jaguarette to be the same animal as the jaguar. The ant bear is indigenous to the country; the two species which are best known are the tamandua and the tamanoir; the latter is about eight feet in length; it attacks the jaguar, and seldom leaves its hold without destroying it. The *canerophagus*, or crab-dog,^a frequents the sea-shore, and uses its feet very dexterously in drawing shell-fish out of their cavities. There are many species of monkeys in Guiana; the *quata* is perhaps the most remarkable from its likeness to man; a fanciful traveller takes notice of a striking resemblance between these animals and Indian old women.^b The *quata* has short ears, four fingers on its hands, and five toes on its feet, the extremity of its tail is of a spiral form, and enables it to suspend itself on the branches of trees.^c Some naturalists maintain that the *ourang-outang* has been observed in Guiana; but this is by no means certain, and many well-informed travellers are of a different opinion. Three species of deer are said to be indigenous to the country; and one of these, (the *cariacou*,) resembles the roe-buck in size and form. The *agouti* and *paca* are considered the best game in Guiana. The *cabiai* is an amphibious animal, armed with strong tusks, and covered with bristles; it has been classed as a species of cavy on account of its not having a tail.^d The *pecari*, or Mexican hog, has an orifice on its back containing a fetid liquor not unlike musk, for which reason it has been called the *porcus moschiferus*; they go together in herds, and sometimes lay waste orchards and cultivated fields.

The squirrels mentioned by Bancroft appear to be the same as those of Europe. The *Viverra vittata*, or erabodago of Surinam, is the most destructive animal of the weasel kind; although not pressed by hunger, it delights in killing its prey.^e The *coati-mondi* is a great destroyer of poultry, and is said to be as cunning as the fox. Different species of armadillos and opossums have been described among the animals of Guiana; but Stedman denies the existence of the *Didelphis Aeneas*, which, when exposed to danger, was supposed to carry its young on its back. The vampire bat is the most destructive in this country; the *Vespertilio lepturus*, which has been described by Schreber, has only been observed in the neighbourhood of Surinam.

The boa, or, as it is called in the country, the aboma, is a large amphibious snake, about forty feet in length, and four or five in circumference; it is indifferent as to its prey, and destroys, when hungry, any animal that comes within its reach; the negroes consider it excellent food, and its fat is converted into oil. The rattle-snake and dipsas are the most noxious reptiles in Guiana; the sting of the latter is not always fatal, but it produces fever accompanied with excessive thirst, from which circumstance it has derived its name.^f Guiana is besides infested with lizards and caymans.

Many of the birds indigenous to the new continent are

found in this country. Three species have been noticed on account of their likeness to the pheasant; one of these, the parraqua, is distinguished by the loudness of its cry.

Of the fresh water fish, the pacou and aymara are said to be the best:^g the warapper has been found on the trees; it feeds on them during the inundations, and remains entangled among the branches when the waters have subsided.^h

The Dutch settlements of Essequibo, Demerary, and Berbice, form what is now called English Guiana;ⁱ which is inhabited by 9,000 whites and 80,000 negroes. The town and harbour of Essequibo, although situated at the confluence of two large rivers, have not hitherto been considered of much importance. The most of the settlers reside on their plantations near the banks of the river: since the thick woods have been cut down, the refreshing sea breeze is not obstructed in its course, and the climate is milder and more salubrious than that of Surinam. It was formerly believed that there were mines near the banks of the Essequibo; one, indeed, is marked on some of our maps; but the attempts made by the Dutch to discover them were not attended with success. The considerable establishments of Middleburgh and Zelandia, on the Poumaron, are subject to Essequibo. Demerary is the most flourishing of the British settlements in Guiana; the population of Stabroek,^k the capital, amounts to 10,000 souls; many of the inhabitants are very wealthy, and the people still retain several Dutch customs. Foreign commodities are very dear; a guinea is frequently given for a pound of tea.^l Travellers have not observed in Essequibo or in Demerary any of those banks of shells and marine deposits, which are so common throughout the coast of Guiana. The soil is in many places very damp, and consists chiefly of a dark blue or gray mould. New Amsterdam is the chief town in the colony of Berbice; it is situated on a river which has given its name to the settlement. There are no cataracts on the Berbice; and in this respect it differs from the other rivers of Guiana. The marshy grounds extend in some places to three or four leagues in the interior, and the land is supposed to be better adapted for cacao and coffee, than for sugar plantations. Fort Nassau was built by the Dutch, to defend themselves against the attacks of a hostile fleet.

The fine colony of Surinam is still in the hands of the Dutch, and is perhaps the best monument of the industry of that laborious people; none of the Antilles are so extensively or so well cultivated. Paramaribo, the principal and only town, is built on the right side of the beautiful river Surinam; the streets are lined with orange, shaddock, tamarind, and lemon trees, which appear in bloom while their branches at the same time are weighed down with fruit. The walks are covered with fine gravel and sea shells; the houses are sumptuously furnished; the rooms are seldom papered or plastered, but wainscoted with cedar, Brazilian, or mahogany wood. If we include the military establishments, the number of Europeans or whites in Surinam may amount to 10,000; the greater part of them reside in the capital. There are, besides,

^a *Ursus cancrivorus*, a species of racoon.—P.

^b Stedman.

^c "The *coaita* suspends itself from the trees by coiling its long tail spirally around the branches."—M.B.

^d The *cabiai* inhabits the banks of the rivers and lakes; its bristles and tusks give it some resemblance to a hog, but, like the *agouti* and *paca*, it is of the genus *Cavia*.—M.B. The *cabiai* has no tusks, but two strong incisors in each jaw.—P.

^e Stedman, t. II. p. 190. t. III. p. 215.

^f Stedman, Bajon.

^g Leblond, Description abrégée.

^h Albert Von Sack, Narrative of a Voyage to Surinam. London, 1808.

ⁱ They were ceded to the British, at the peace of 1814.—P.

^k Now called Georgetown.—P.

^l Bolingbroke's Voyage to Demerary.

not less than 80,000 negroes, and the value of the exports is calculated at more than 1,000,000*l*.^a Those that have visited Holland and lower Holstein, may form an imperfect notion of the Dutch and British settlements in Guiana;—a vast plain covered with plantations, or enamelled with a rich verdure, bounded on one side by a dark ridge of impenetrable forests, and watered on the other by the azure billows of the ocean. This garden between the sea and the desert is divided into a great number of squares, confined by dikes, and separated from each other by excellent roads or navigable canals. Each habitation seems to be a village, from the number of small buildings attached to it; and the natural beauties of the country form a striking contrast with its rich cultivation.^b

The revolted negroes have established several petty republics in the interior; although the inhabitants of these states go naked, they live in abundance. They make their butter from the fat of the palm-tree worm, and extract a very good oil from the ground nut. They are not only skilled in the chase, but are expert fishermen, and acquainted with the art of curing their provisions. Like the Hindoos, they obtain salt from the ashes of the palm tree; and if a sufficient quantity of that article cannot be procured, they season their food with red pepper. The palm tree furnishes them with plenty of wine; their fields are covered with rice, manioc, yams, and plantains. The manicole supplies them with all the materials of which their huts are constructed; their cups, or gourds, are made from the calabash tree, and a sort of net-work woven by an insect serves them for hats.^c The *nebees*, or lianas, so common in the forests, are converted into cordage. The negroes may have, at all times, timber for the trouble of cutting it; they kindle a fire by rubbing two pieces of hard wood, which they call *bi-bi*, against each other. Candles are made of their tallow, and their oil is burnt in lamps; the numerous swarms of wild bees with which their country abounds, yield them plenty of wax and honey.

France has never derived any advantage from its colony in Guiana. Cayenne, the metropolis of this province, is well fortified on the side of the shore, and almost inaccessible to an invading force on account of the marshes and thick woods which surround it.^d The population of the town amounts to two or three thousand souls; that of the colony to eighteen thousand inhabitants, without including Indians; the total number of whites has been calculated at two thousand. Although the Oyapok and Marony have been considered the actual limits on the east and west, the habitations of the settlers on the western side do not extend beyond the banks of the Cauron. Arnotto, indigo, and different sorts of spices, are the most valuable productions of this province. Previous to the year 1789, the exports were very inconsiderable; since that time they have been at least tripled. Cayenne appears to be naturally as fine a country as Surinam; but the mismanagement of its directors, their ignorance, and the force of custom, have checked the efforts of enlightened and enterprising mer-

chants, who were anxious to increase the wealth and resources of the colony.

M. Leblond, an able physician, who resided many years at Cayenne, proposed lately to civilize two tribes of Indians, who would have worked as husbandmen, had they found masters.^e Besides the coffee, indigo, and cotton, which these Indians would have cultivated, they might also have furnished a sufficient quantity of provisions for a great many negroes. Had this project been realized, had the colonists expelled from St. Domingo by the revolted negroes been received into this country, we might have seen, after the lapse of a few years, another Surinam in Guiana, whose reclaimed natives would have been well fitted to repress the insurrections of the African slaves.^f

There are a great many savage tribes in the interior of Guiana. The Galibis are the most numerous people in the French settlements, and their language is generally spoken by the other tribes. Such as reside in the neighbourhood of Cayenne, live in cottages; twenty or thirty families are sometimes crowded together in a single hut. They never plunder each other; their doors are always open, and the savage, fatigued by hunting, may at all times repose himself in the nearest dwelling. The language of this tribe is harmonious, and rich in synonyms, and its stynax is complicated and ingenious. These savages have given many proofs of their intelligence, but their great love of independence makes them still reject our arts and instructions;^g their population cannot be ascertained, but it is probable that it exceeds ten thousand souls. The Galibis occupy a tract of land between the rivers Cauron and Marony; a dangerous ridge of rocks in that part of the country, is denominated the Devil's Coast.^h The Kiricostos and Parabuzanes,ⁱ are the principal tribes on the upper Marony. There were, besides, many others, that inhabited the marshy lands and rich pastures between the Oyapok and the Araway; but we are assured that the Portuguese, to whom this territory was ceded by the treaty of Vienna, have driven out the natives, and changed the northern frontiers of their Brazilian empire into an absolute desert.

The state of ignorance and barbarism in which Europeans found different tribes, has made some regard as fabulous the traditions concerning the existence of a country abounding in gold, and situated in the interior of Guiana.^k Many Spanish and English adventurers attempted to visit this new region, El Dorado, and its capital Manoa. It was even affirmed that there were in Manoa temples and palaces covered with gold. A German knight, Philip Von Hutten, set out, about the year 1541, with a small band of Spaniards from Coro on the coast of Caraccas. He came within sight of a town inhabited by the Omegas; the roofs shone as if they had been overlaid with gold, but the land was so ill cultivated that his men had difficulty in obtaining provisions. The bold knight being defeated by the Omegas, determined to return against them with a greater force; but he perished by the hands of an assassin, while he was preparing to carry his project into effect.^l It is not impossible that the enthusiastic German may have mistaken

^a "At 30 millions francs."

^b Pinckard's Notes on the West Indies.

^c "There grows on the palm trees a kind of caps of a natural tissue, like the *sustillo* of Peru."—M.B.

^d Rapport Officiel, Moniteur, 1809, No. 356.

^e Leblond, Description abrégée de la Guyane Française.

^f "To prevent the escape of the negroes."—M.B.

^g Malouet, Voyage dans la Guyane.

^h "The Galibis principally occupy the country between the Couron and the Maroni. The coast, bordered by an inaccessible reef, is called the Devil's Coast, (*Côte du Diable*)."—M.B.

ⁱ "Kiricostos and Parabayanes."

^k "Is not the poverty and barbarism in which these tribes were found by Europeans, conclusive evidence against the existence of a country in the interior, abounding in gold, by the Spaniards called *El Dorado*?"—M.B.

^l Oviedo.

rocks of talc for roofs of gold, and the Omegas may have been confounded with the Omaguas,^a a warlike people on the banks of the Amazon, who have made some progress in civilization. The Peruvian missionaries tell us that Manoa is the name of a small town on the banks of the Ucayal. Should it however be thought unlikely that Philip Von Hutten ever penetrated into the country of the Omaguas, the story might be explained independently of this objection. The Indians of Guiana may have had some obscure notions concerning the empire of the Incas, their temples and palaces adorned with gold, and their lake Titicaca. The exaggerated and erroneous accounts which the German received, might have misled the Spaniards, and induced them to go in quest of a region which they already possessed. At all events, few of the minerals hitherto ob-

served in Guiana are metalliferous, and there is not much reason to believe that El Dorado will ever be found in the interior of that country.

Table of the population, in the year 1815, of the British and Dutch Colonies in Guiana, extracted from official reports.

	Whites.	People of Colour.	Slaves.	Sum Total
Demerary,	2871	2980	71,180	77,031
Berbice,	550	240	25,169	25,959
Total amount of inhabitants in English Guiana,	3421	3220	96,349	102,990
Surinam, or Dutch Guiana,	2029	3075	51,937	57,041

^a "The name of the Omegas appears identical with that of the Omaguas."—M.B.

BOOK XCIII.

THE DESCRIPTION OF AMERICA CONTINUED.

Columbian Archipelago, or the Greater and Lesser Antilles.

THERE is a group of islands in the form of an arch between the two continents of America. Those opposite the American coast were first called Antilles; that name has been since applied to the whole of them. "Dicuntur Antilæ Americæ, quasi ante insulas Americæ, nempe ante insulas sinus Mexicani." They have been vaguely denominated the West Indies, from the term India, originally given to America by Columbus. That illustrious navigator planned his voyage in the expectation of finding a western passage to India, shorter and less tedious than that by the coast of Africa. This undertaking might have been accomplished, had the geography of the ancients, on which it was founded, been correct; but although the discovery of the Pacific Ocean detected the fallacy of Columbus, the islands still retained their ancient name. To obviate this error, and to express our gratitude to that great man, these islands have of late years been called the Columbian Archipelago.^a They extend from the Gulf of Florida to that of Paria, and are divided into the greater and the lesser. Cuba, Jamaica, St. Domingo, and Porto Rico, are still called the Greater Antilles. The English, the French, and the Spaniards, have affixed different meanings to the terms Windward and Leeward islands. It is evident that the acceptance of this nautical phrase must depend on the position of the navigator, and on the track which he proposes to follow.

That part of the ocean between these islands, South America and the Mosquito Coast, Costa Rica and Darien, is called the Caribbean Sea. It is navigated by trading vessels from most nations in Europe, and is remarkable on account of several phenomena. The first of these is the effect of a gentle motion impressed on the ocean by the equatorial currents from east to west, and impelled towards the American continent through the openings in the chain of the Lesser Antilles. This uniform movement is not accompanied with much danger from the Canary islands to the mouth of the Orinoco. The ocean in these latitudes is so calm and so seldom subject to storms, that the Spaniards have given it the name of the Ladies' Sea.^b It must not, however, be imagined, that the motion is less rapid, because the waters are not agitated; the course of vessels is accelerated between the Canaries and South America, and a direct passage is rendered almost impracticable from Carthage to Cumana, and from Trinidad to Cayenne. The new continent forms a barrier from the isthmus of Panama to the northern part of Mexico against the sea's motion towards the west. The current changes its direction at Veragua, and bends into all the windings on the coasts of

Costa Rica, the Mosquitos, Campeachy, and Tabasco. The waters which flow into the Mexican Gulf, between Yucatan and the island of Cuba, return to the ocean through the Gulf of Florida; but their progress towards the main is retarded by an extensive eddy between Vera Cruz and Louisiana. They form at their outlet, what seamen have denominated *the gulf stream*, which issues with great velocity from the Gulf of Florida, and moving in a diagonal direction, gradually withdraws from the coast of North America. If vessels sailing from Europe, and bound to this coast, be ignorant of their situation, or cannot determine their longitude, they may regulate their course after having reached the gulf stream, the position of which has been ascertained by Franklin, Williams, and Pownall. This current changes its course to the east at the forty-first parallel, and increases in breadth, while its temperature and velocity are diminished. Before it passes the westernmost of the Azores, it divides itself into two branches, one of which is impelled (at least in certain seasons of the year) towards Norway and Iceland, and the other to the Canaries and the western coasts of Africa. This eddy in the waters of the Atlantic ocean, accounts for trunks of *Cedrela odorata* being driven against the force of the trade winds from the coasts of America to those of Teneriffe. The temperature of this current, which flows with such rapidity from lower parallels into northern latitudes, is about two or three degrees of Reaumur higher on the banks of Newfoundland than that of the water near the shore, the motion of which, if contrasted with the velocity of the other, may be wholly disregarded.

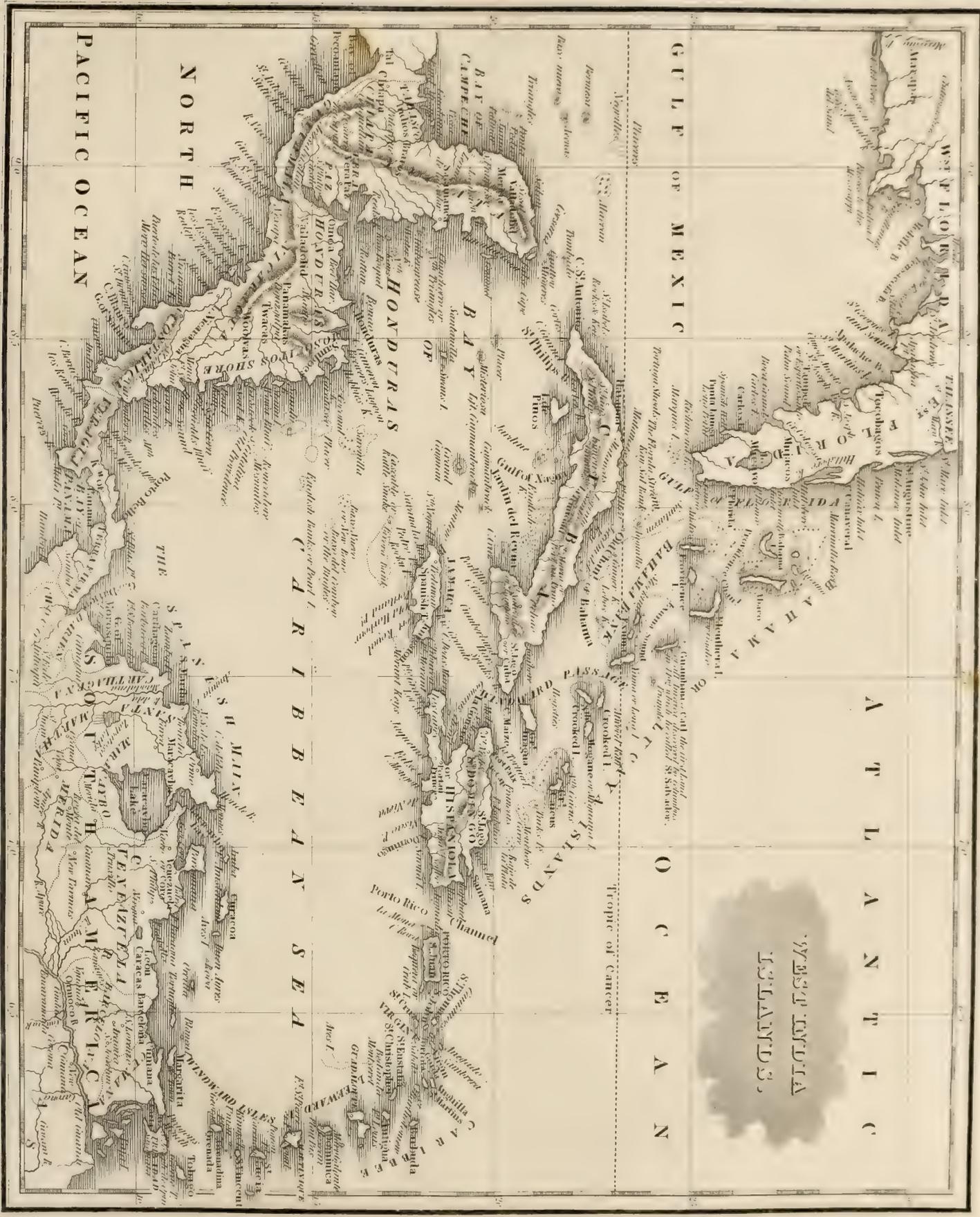
The stillness of the Caribbean Sea is occasionally disturbed by violent hurricanes and tempestuous gusts, which pass through the narrow openings in the chain of the Antilles. But the water in fine weather is so transparent, that the mariner can discern fish and coral at sixty fathoms below the surface. The ship seems to float in the air, and the spectator is often seized with vertigo, while he beholds through the crystalline fluid submarine groves or beautiful shells glittering among tufts of fucus and sea weed.^c

Fresh water springs issue from the sea on both sides of the channel between Yucatan and Cuba. The former have been already described; the latter rise from the bay of Xagua, about three marine miles from the western coast of Cuba. They rush with so much violence out of the deep that it is dangerous for small vessels to approach them; boats have been dashed to pieces by the force of the surge. Coasting vessels sometimes sail there for a supply of fresh water, which the seamen draw from the bottom of the

^a This is the name proposed by Malte-Brun, in the original. Pinkerton calls them the Isles of Colon.—P.

^b "Mer de Dames."

^c Zimmermann, West-Indien, p. 5.



PACIFIC OCEAN

NORTH

GULF OF MEXICO

CARIBBEAN SEA

OCEAN

ATLANTIC

WEST INDIES

Tropic of Cancer

London: Published by Samuel Weller & Co.

1847

ocean. The freshness of the water too, as may easily be supposed, depends on the depth from which it is drawn. Humboldt remarks that some of the fish in these springs have never been found in salt water.^{a b}

There are mountains on all the larger islands of this Archipelago; but the highest are situated in the western part of St. Domingo, the eastern part of Cuba, and the northern part of Jamaica; or in that part of the group, where these three great islands approach nearest to each other. From a general survey of these mountains, their direction seems to be from north-west to south-east; but after examining minutely the best maps of each island, it is not difficult to discover in most of them a centre from which the rivers descend, and where the different mountains unite in a nucleus. The volcanoes, that have been observed in Gaudaloupe, and some other islands, arise from these central points, which are most commonly composed of granite in the Lesser, and of calcareous rocks in the Greater Antilles.

The geology of the West Indies is as yet very imperfectly known; it has been ascertained that the most extensive plains in the smaller islands are situated towards the eastern coast;^c but this remark cannot be applied to the Greater Antilles and the Virgin islands. The greater number resemble each other only in their steep rocks, and in the abrupt transitions from the mountains to the plains, which are so remarkable in St. Domingo, that the French settlers have made use of a new word^d to denote these craggy heights.

Coral or madrepore rocks are very common on the different coasts; it may perhaps be afterwards discovered that this substance has contributed as much to the formation of the Columbian Archipelago as to any of the islands in the great ocean. Cuba and the Bahamas are surrounded by labyrinths of low rocks, several of which are covered with palm trees; and this fact tends to confirm our supposition, for they are exactly the same in appearance as some of the coral islands in the Eastern Ocean.

Most of the Antilles are situated under the tropic of cancer, and there is not much difference in their climate; accurate observations made on any one of them may be applied with little variation to them all. The spring begins about the month of May; the savannas then change their russet hue, and the trees are adorned with a verdant foliage. The periodical rains from the south may at this time be expected; they fall generally about noon, and occasion a rapid and luxuriant vegetation. The thermometer varies considerably; it falls sometimes six or eight degrees after the diurnal rains; but its medium height may be stated at 78° of Fahrenheit. After these showers have continued for a short period, the tropical summer appears in all its splendour. Clouds are seldom seen in the sky; the heat of the sun is only rendered supportable by the sea breeze, which blows regularly from the south-east during the greater part of the day. The nights are calm and serene; the moon shines more brightly than in Europe, and emits a light that enables man to read the smallest print; its absence is in some degree compensated by the planets, and above all by

the luminous effulgence of the galaxy. From the middle of August to the end of September, the thermometer rises frequently above 90°, the refreshing sea breeze is then interrupted, and frequent calms announce the approach of the great periodical rains. Fiery clouds are seen in the atmosphere, and the mountains appear less distant to the spectator than at other seasons of the year. The rain falls in torrents about the beginning of October, the rivers overflow their banks, and a great portion of the low grounds is submerged. The rain that fell in Barbadoes in the year 1754, is said to have exceeded 87 inches. The moisture of the atmosphere is so great, that iron and other metals easily oxydated are covered with rust. This humidity continues under a burning sun;—the inhabitants, (say some writers,^e) live in a vapour bath; it may be proved, without using this simile, that a residence in the lower part of the country at this season is disagreeable, unwholesome, and dangerous to a European.^f A gradual relaxation of the system diminishes the activity of the vital functions, and produces at last a general atony.

The excitement of a warm climate occasions a consequent depression; Europeans, who reside a few years in the country, often lose the energy of their character, and it sometimes happens that their mental faculties are enfeebled.

Putrid fevers are perhaps the most noxious diseases to which settlers are exposed; many of these maladies have hitherto baffled all the efforts of medicine; so little is known of the yellow fever that some physicians ascribe it to the miasma floating in the air,^g and others insist gravely that it originates from a certain unknown lunar influence.^h It has, however, been ascertained, that this disease is not contagious, and that it does not occur so frequently in the mountainous districts. The advantage of removing patients to the high grounds is obvious, but from the rapid progress of the disease, this mode of treatment can be followed in very few cases.

The temperate zone of the Antilles, as it has been sometimes called, begins about fourteen hundred feetⁱ above the level of the sea; many of the vegetables common to Europe grow in that part of the country, and the centigrade thermometer seldom reaches higher than 18° at noon.^k The mountains at the elevation of 4000 feet^l are covered with mist and subject to continued rains.^m

It has been observed by travellers, that most of the quadrupeds indigenous to the West Indies are of a small size, as the *Vespertilio molossus*, the *Viverra caudivolvula*, and the *Mus pilorides*. Lizards and different sorts of serpents are not uncommon; but the greater number of them are harmless, and, with the exception of Martinique and St. Lucia, no scorpions are to be found in the Lesser Antilles. This noxious reptile is frequently observed in Porto Rico, and it exists probably in all the larger islands. The cayman haunts the stagnant waters, and negroes are sometimes exposed to its murderous bite. The parrot, and its various species from the macaw to the parroquet, frequent the forests; aquatic birds in unnumbered flocks enliven the shores. The colibri or humming-bird is the sportive inha-

^a A. de Humboldt, *Tableaux de la Nature*, t. II. p. 235.

^b "The lamantin is often taken there, an animal which does not habitually live in salt water."—M.B. It is usually found at the mouths of rivers, in warm climates.—P.

^c Leblond, *Voyage aux Antilles*.

^d Malte-Brun, in the original.—P.

^e *Morne*.

^f *Mémoire du Dr. Cassan, inséré dans les Mémoires de la Société médicale d'émulation*, t. IV. *Mémoires de M. Moreau de Jonnes*, lus à l'Institut.

^g It is ascribed to that cause in the original.—P.

^h Pinckard's *Notes on the West Indies*.

ⁱ "400 mètres."

^k "Reaumur's thermometer rises there only to 15° or 18°, in the open air, at noon."—M.B.

^l "1200 mètres."

^m Leblond, *Traité de la Fièvre jaune*, p. 130.

bitant of these warm climes ; it seldom remains long in the same place, but is seen for a moment on the blossoms of the orange or lime tree, and displays in its golden plumage the brightest tints of the emerald and the ruby.

Trees similar to those that we have admired in other tropical countries, grow in equal luxuriance on these islands. The Banana, which in its full growth appears like a cluster of trees, is at first weak, and requires the support of a neighbouring plant. A canoe made from a single trunk of the wild cotton tree, has been known to contain a hundred persons, and the leaf of a particular kind of palm tree affords a shade to five or six men.^a The royal palmetto or mountain-cabbage grows to the extraordinary height of two hundred feet, and its verdant summit is shaken by the lightest breeze.

Many of the plantations are enclosed by rows of Campeachy^b and Brazil-wood trees ; the carob is as much prized for its thick shade as for its excellent fruit, and the fibrous bark of the great cécropia is converted into strong cordage. The trees most valuable on account of their timber, are the tamarind, the cedar, the Spanish elm, the iron wood, and the *laurus chloroxylon*, which is well adapted for the construction of mills. The dwellings of the settlers are shaded by orange, lemon, and pomegranate trees, that fill the air with the perfume of their flowers, while their branches are loaded with fruit. The apple, the peach, and the grape, ripen in the mountains. The date, the sapota, and sapotilla, the mammee,^c several oriental fruits, the rose apple, the guava, the mango, and different species of spondias and annona, grow on the sultry plains.

Botanists have observed on the wide savannas, the *Serpidium Virginiense*, the *Ocymum Americanum*, the *Cleome pentaphylla*, and the *Turnera pumilea*. The coasts are shaded by phyllirias and various species of acacia, particularly the Farnese, which is remarkable for the fragrance of its flowers. Opuntias and torch thistles cover the sides of the mornes or precipices, and the vine tree^d grows on the rocks in the neighbourhood of the shore. The woods abound in lianas, whose branches, entwined round the trees, form sometimes verdant galleries or canopies of flowers. Arborescent ferns grow to a great height, and arrive soon at maturity ; the *Polypodium arboreum*, which belongs to this class, may be mistaken at a distance for the palm tree on account of its lofty trunk, and the broad leaves on its summit. The *Lignum vitæ*, *Wintera canella*, *Cinchona Caribæa*, and other medicinal plants, are imported into Europe. The situation of these islands, their elevation, and the great difference between the climate of the mountains and the plains, account sufficiently for their abundant vegetation.

Some writers have supposed that the commercial wealth of the Antilles is derived from the vegetable productions cultivated or naturalized by the colonists. This opinion is in most, though not in all instances, correct ; wild vanilla is found in the woods of Jamaica and St. Domingo ; the settlers cultivate aloes at Barbadoes, and the same plant grows spontaneously on the stony soil of Cuba and the Bahamas ; the *Bixa orellana*, or the arnotto plant, is indigenous to all

the warm countries of America. Pimento, which is so common in this archipelago, grows in a wild state ; all attempts to cultivate it have hitherto proved unsuccessful. The heights are covered in many places with groves of the *Myrtus pimenta*, and no other shrub grows under its fragrant shade.

The yam and the sweet potato are the principal food of the negroes ; manioc and the Angola pea have been imported from Africa. But the West Indian planter is wholly occupied in ministering to the wants or luxuries of Europeans ; were it not for the immense supplies of corn brought annually from Canada and the United States, these fertile islands might be desolated by famine.

Sugar is the great staple commodity of the West Indies. The cane is generally supposed to be indigenous to these islands, and to that part of the continent of America situated within the tropics ; but it is doubtful whether the particular sort cultivated in the Antilles was brought from India or the coast of Africa. Herrera informs us that the sugar cane was transplanted from the Canary Islands into Hispaniola by Aguilon in 1506,^e and that the first sugar mill was constructed by Velloso, a surgeon in St. Domingo. If the accuracy of Herrera's statement be admitted, nothing more can be derived from it, than that there was a local importation of the cane about the year 1506. It appears, on the other hand, from the decads of Peter Martyr, that sugar was not unknown in Hispaniola at the time that Columbus made his second voyage, which was undertaken in the year 1493, and finished in 1495. The *Otaheite* cane has been generally introduced into the Antilles since the time of Captain Cook ; it is considered in many respects superior to the common creole plant.

A field of canes is in *arow* or full bloom about the month of November. At this period of its growth there are few objects in the vegetable kingdom that can vie with it in beauty. The canes are seldom lower than three feet, and sometimes higher than eight ; this difference proceeds from the nature of the soil and the mode of cultivation. A ripe field may be compared to an immense sheet of waving gold, tinged by the sun's rays with the finest purple. The stem, with its narrow depending leaves, is at first of a dark green colour, but changes as it ripens to a bright yellow ; an *arow* or silver wand sprouts from its summit, and grows generally to the height of four or five feet ; the apex is covered with clusters of white and blue flowers not unlike tufts of feathers. The finest plantations are sometimes destroyed by fire, a calamity which occurs too frequently in these islands. No conflagration is more rapid, none more alarming ; those who have witnessed such scenes can best describe them. The hopes and fortune of the husbandman, the painful toil of many hundred slaves, the labour of years, are in a few moments destroyed. If a plantation is by any accident set on fire, the inhabitants sound the alarm bell, and the echo is repeated from the neighbouring hills. Rolling smoke, spreading flames, and crackling reeds, are sometimes the first indications of danger. Louder notes are afterwards heard from a distance ; bands of negroes hasten to the flames ; their fears and exertions, the cruelty of their overseers, the noisy impatience of the planters, groups of horses and mules

^a The glabra, the leaf of which is seven feet in length, and from two to three in breadth.—*Adamson*.

^b *Hematoxylon campechianum*.

^c *Mammæa Americana*.

^d *Coccoloba Uvifera*.

^e This is the statement in Edwards's West Indies. In the original, Malte-Brun states, without quoting Herrera, that the sugar cane was transplanted from the Canaries into Hispaniola in 1606, by Aguillar, an inhabitant of Conception de la Vega. The rest of the sentence is taken from Malte-Brun.—P.

moving in the back ground, increase the effect of so sublime a picture.

The cotton plant flourishes on dry and rocky lands, if they have not been too much exhausted by former cultivation. Dryness is of great advantage to it in all its stages; when the shrub is in blossom, or when the pods begin to unfold, the plant is rendered completely useless by heavy rains. These observations apply to every species, but more particularly to that sort which is cultivated by the French settlers. There are several varieties of this shrub; all of them resemble each other; the best are the *green seed*, the Brazilian, and the French or *small seed*.

There is but one species of the coffee tree, and it is supposed to be a native of Arabia Felix.^a This plant was transplanted to Batavia, from thence to Amsterdam and Paris, and afterwards to Surinam and Martinique. It seldom bears fruit before the third season, and sometimes not until the fifth or sixth; it never lasts more than thirty years, and frequently decays long before that time. A single plant may produce from one to four pounds of coffee.

We cannot offer in our imperfect account of the Columbian Archipelago any remarks concerning the natives, who have been exterminated by the Europeans. Whether the Caribbees, or Caribs, had any possessions beyond the Antilles, whether the populous tribes of St. Domingo and Cuba were of the same race as the aborigines of Florida or Yucatan, are questions which cannot be considered very minutely in a work of this nature, and on which, besides, no very satisfactory information can be obtained.

Cuba is the largest and most important of these islands; it commands the windward passage, as well as the entrance into the Gulf of Mexico, and is for that reason sometimes called the key of the West Indies. It is more than 700 miles in length, and its medium breadth is about 70; thus, in extent, it is nearly equal to Great Britain, but its population has not of late years been ascertained, and authors have differed widely on this subject. According to the statements of some writers, Cuba contains 257,000 colonists,^b and 465,000 slaves; its total population must therefore amount to 722,000 souls.^c Mr. Bonnycastle^d affirms, on the other hand, that there are not more than 550,000 inhabitants on the island.^e Only a small portion of Cuba has as yet been cultivated; a chain of mountains, none of which are very lofty, extends throughout its whole length. The soil is very fertile; the climate is more temperate than in many of the other islands; and Cuba is considered, on the whole, the healthiest and most fruitful settlement in the Antilles. All parts of the island are not equally wholesome; many valleys exposed to the south, are not only scorched by the sun's rays, but the heat is reverberated from the adjacent rocks. Early historians speak of rich mines and veins of gold and silver; no trace of them, however, can at present be found; the inhabitants find sometimes minute particles of these metals in the sand, or in the beds of rivers that descend from the mountains; and it is probable that this circumstance has given rise to the exaggerated accounts of the first travellers. Copper is the most valuable of its metallic productions; a trade is carried on from the eastern mines with the other islands, and some of the ports

on the southern continent. A mine of rich iron ore has lately been discovered within the jurisdiction of Havannah. The island is also famed for its mineral waters, and numerous salt ponds; but its wealth is chiefly derived from extensive sugar plantations, which yield from two to three millions of arrobas.^f Its tobacco, which is well known in Europe by the name of Havannah, is considered the best in the world; coffee, cacao, manioc, and maize, are some of its other productions. All the trees that have been observed on the Antilles grow on this island, and timber for building ships is sent from it to Spain. Bees were brought thither about fifty-five years ago by some emigrants from Florida; honey and wax are now two important articles in the export trade. Oxen have multiplied so much that they are become wild; immense herds haunt the forests and savannas; the inhabitants kill them for the sake of their hides and tallow, which are sent to Europe. The colonists are said to be the most industrious and active of any in the Spanish islands, and the annual revenue amounts to two millions of piastres, but the expenses of administration absorb a much greater sum. The military force, which consists chiefly of militia, exceeds perhaps 26,000 men, the most of whom are ill disciplined.

Havanna, the capital of this island, was founded on the north coast by Velasquez in the sixteenth century; it is the residence of the governor, and its population amounts to fifty thousand souls.^g The largest fleet may ride in its harbour, but the entrance into this fine port is narrow; vessels may be taken in time of war, when they are about to go into it; for, as only one ship can pass at a time, the hindmost have sometimes fallen into the hands of the enemy without their comrades being able to assist them. The passage is defended by two forts: Moro castle is a triangular building on the east side, mounted with forty pieces of heavy cannon; the other is built on the western bank, and communicates with the town.

Puerto del Principe, which is situated about the middle of the northern coast, near a fertile country abounding in rich savannas, contained, about thirty years ago, twenty thousand inhabitants. St. Jago de Cuba, at one time the chief town of the island and the seat of a bishop, who was formerly suffragan to the metropolitan of St. Domingo, has been, for that reason, called the ecclesiastical capital; but as the bishop now resides at Havanna, it can no longer claim this distinction. It is built near a fine bay on the southern coast; the harbour is large and commodious, its trade consists mostly in sugar and tobacco, and its population exceeds probably fifteen thousand souls.^h Bayamo, or St. Salvador, is situated on the little river Estero, about twenty miles from the ocean; the Bayamo channel, so called from this place, waters the low rocks and islands, to which Columbus gave the name of the Queen's Gardens. Matanzas, La Vega, and Trinidad, may each of them contain about five thousand inhabitants.

Although two islands in this archipelago are larger than Jamaica, the industry of the English has enabled it to vie with any of the settlements. Its length from east to west is about one hundred and fifty miles, and it is nowhere more than sixty in breadth; towards the extremities it is much

^a This is not the statement in the original. "The coffee tree, a native of Arabia Felix, was long peculiar to that country." There are numerous species of the genus *Coffea*. The *C. Arabica* is the one generally cultivated.—P.

^b "257,000 whites and free people of colour."—M. B.

^c Communications concerning Cuba, London.

^d Bonnycastle, Spanish America.

^e Population, in 1821, 630,980; namely, 296,021 whites, 145,671 free blacks, and 225,268 slaves.—Morse.—P.

^f A Spanish weight, equivalent to twenty-eight English pounds.

^g "70,000."

^h "About 20,000."

narrower, and it resembles in some respects the figure of an ellipse.

The Blue Mountains consist partly of rocks heaped upon each other by frequent earthquakes, and extend from one end of the island to the other; the spaces between the naked rocks are filled with lofty trees and evergreens, which seem to indicate a perpetual spring. The numerous rivers in this part of the country are fed by a thousand rills; the mountains above them, and their cascades issuing from verdant woods, add to the beauty of the landscape. Besides the great chain, there are others, which become gradually lower as they approach the coast; these hills are covered with coffee trees, and the prospect of the plains below them is bounded by extensive sugar plantations. The soil of the savannas abounds in marl, and affords an excellent pasturage for cattle. The land most favourable for the cultivation of sugar is called brick mould, not from resembling that substance in colour, but because it contains such a due mixture of clay and sand, as is supposed to be well adapted for the use of the kiln.^a The mountains near Spanish Town are resorted to on account of their medicinal waters, but the greater number of saline springs have been observed in the plains, and lead is the only metal which has hitherto been discovered in Jamaica. The low grounds are unhealthy on account of the heat; the morning sea-breeze renders the climate less oppressive, and the refreshing air of the mountains is salutary to invalids. The summit of the highest mountain is about seven thousand five hundred feet^b above the level of the sea.

Although sugar is in some seasons much more abundant than in others, it yields on the whole a greater return than any other production of this island. A great quantity of cacao was formerly cultivated; but the colonists have of late years paid greater attention to their coffee plantations. It appears from official documents, that Jamaica produces about three-fourths of the coffee, and more than half of the sugar, which Great Britain derives from her colonies. The harvests are less variable than those in the Windward and Leeward islands, and the country is not so much exposed to droughts and hurricanes. The produce of Antigua, for instance, amounts in some seasons to 20,000 hogsheads of sugar, in others to less than a thousand.^c Pimento^d and ginger are cultivated in Jamaica; its mahogany, which is so much used in England, is said to be equal to any in the world, and the soap berry is a remarkable production, which possesses all the qualities of that substance. All the fruits of the Antilles are found in this island;^e the bread-fruit tree was brought thither from Otaheite, and transplanted by the celebrated Sir Joseph Banks.

Jamaica is divided into three counties, Middlesex, Surry, and Cornwall; its government is representative, and the legislative power is vested in the governor, in the house of Assembly, which consists of forty-three members elected by freeholders, and in a council of twelve persons nominated by the king. Kingston, St. Jago, and Port Royal, return each of them three representatives, and two are sent from every other parish. Port Royal, once the capital of the island, and a place of very great wealth, has been reduced to an inconsiderable size by earthquakes and repeated

calamities; its excellent harbour, the ease with which large vessels might approach the wharfs, and other conveniences, attracted formerly a great number of settlers; but a navy yard, an hospital and barracks, that may contain a single regiment, are all the remains of its ancient splendour. The population of Kingston, now the capital of Jamaica,^f amounts to 30,000 inhabitants. Many of the houses in the upper part of the town are spacious, although, like others in these islands and the neighbouring continent, they consist only of a single story. St. Jago de la Vega, or Spanish Town, the metropolis of the island in the time of the Spaniards, is situated at no great distance from Kingston; it is still the seat of government and of the different courts, and its population exceeds 6000 souls.

The total number of inhabitants in Jamaica, amounted, in the year 1787, to 23,000 whites, 4093 free people of colour, and 256,000 slaves; so that the proportion between the Europeans and the negroes was as one to more than eleven. It appears from the census of 1805, that there were 28,000 whites, 9000 free people of colour, and 280,000 slaves; thus there must have been at that time ten negroes for every European, and about seven and a half slaves for every free person; but the free population has increased of late years in a greater ratio than that of the slaves. According to the registers laid before the colonial assembly in 1811, the number of slaves exceeded 326,000; in 1815, a short time after the slave trade was prohibited, this number was reduced to less than 315,000. The total population was then estimated at 360,000 souls; the inhabitants of European origin were calculated at 30,000, and the mulattoes amounted to 15,000.^g The exports from the island in that year consisted of 119,000 hogsheads of sugar, 53,000 puncheons of rum, and 27,360,000 lbs. of coffee.

Columbus gave the name of Hispaniola, or Little Spain, to the island of St. Domingo. The extent of this island is about 140 miles from north to south, and 390 from east to west. The Cibao, a group of lofty mountains near the middle of the island, is divided into three chains, the longest of which has an eastern direction. As the most of these mountains may be cultivated, the productions and fruits of different climates are often found in the same district. But the low grounds are very unhealthy; if the diseases to which Europeans are liable on their arrival do not prove fatal, they generally impair the constitution.^h Spring and autumn are unknown in the eastern and southern parts of the island; the stormy season lasts in these districts from April to November; in the north the winter begins in August and continues to the month of April. The soil is light, and consists in some places of a thin stratum of vegetable mould, resting on a layer of clay, tufa, and sand; but the different varieties which have been observed, render the country well adapted for most kinds of cultivation.

Early writers tell us that gold, silver, copper, tin, magnetic iron ore, rock crystal, sulphur, coal, marble, jasper, and the finest porphyry, are to be found on the mountains of St. Domingo. Their statements are without doubt exaggerated, but they have been perhaps, for that reason, too

^a Edwards's History of the West Indies.

^b The Blue Mountain Peak rises 7431 feet above the level of the sea.—P.

^c Edward Young's West India Common-Place Book.

^d Pimento is not cultivated, but grows spontaneously. See p. 346.—P.

^e Edwards.

^f The largest town; but St. Jago is the capital, or seat of government.—P.

^g Colonial Journal, vol. I. p. 245.

^h Moreau de Saint-Méry, Description de la Partie Française de Saint Domingue, I. 529. Cossigny, Moyens d'améliorer les Colonies, I. 16me observation.

hastily rejected. A Spanish mineralogist, by proving, in our own times, that all these metals are found in this island, has at least shown that the accounts of earlier writers were not wholly fictitious.^a The same author is likewise of opinion, that some of the mines might, even at present, be worked with advantage. Herrera declares that the mines of Buenaventura, and La Vega, yielded annually 460,000 marks of gold, and that there was found in the former place a piece of gold which weighed two hundred ounces. The Maroon negroes in Giraba still carry on an inconsiderable trade in gold dust.^b

The population of the Spanish settlements, or of the central and eastern parts of the island, amounts at present to about 100,000 inhabitants, of whom only 30,000 are slaves. These colonists are not industrious; they are chiefly occupied in breeding cattle, cutting timber, or planting cacao and sugar. It is stated that there were, in the year 1808, 200,000 oxen in this part of the island, and that at the same time, 40,000 pieces of mahogany were exported to Europe, which were supposed to be worth 140,000*l.* Valverde tells us, that the cacao raised in this settlement is the best in the Antilles; and it is well known that the island supplied the whole of Spain with that article during the sixteenth century.

San Domingo was the first town founded by Europeans in America; the bones of Christopher Columbus and his brother Lewis are deposited in two leaden coffins in the cathedral of this city. The ashes of the illustrious discoverer were removed from Seville, where they were interred in the Pantheon of the Dukes of Alcala; but nothing remains at present of the ancient splendour of San Domingo, which was wealthy, flourishing, and populous, in the reign of Charles the Fifth. It was at this place that the conquerors of Mexico, Chili, and Peru, formed their vast designs, and found the means of putting them in execution. The principal towns in the inland districts are San Yago and La Vega; the traveller may wander in this part of the country, through fertile and extensive meadows, without discovering any other traces of inhabitants than the temporary huts of a few shepherds. Lava, or rather perhaps fragments of basalt, have been observed on the heights, which are covered with lofty forests.^c

As the bay of Samana is sheltered by many islets and rocks, it might be converted into the finest harbour in the island. The Youna, which flows into this bay, might be rendered navigable for the space of twenty leagues; thus nature seems to have pointed out a situation for the capital; but the banks of that vast basin are unhealthy, and Europeans are unwilling to reside on them; some French colonists, however, have lately attempted to cultivate the district.^d

The French possessed formerly an extent of territory in the western part of the island, which was equal to 1700 square leagues;^e only a small portion of the country was occupied, for more than seven tenths of it were mountainous, or covered with wood.^f We may judge of the fertility of this colony, from the fact that the produce of 121 square

leagues, or the quantity of sugar, coffee, cotton, indigo, and cacao, raised on a district of that extent, was supposed, according to a moderate valuation, to be worth in France 7,682,480*l.*^g The exports from this settlement amounted, in the year 1788, to 7,487,375*l.* As there were at that time 452,000 negroes, if we consider them as the means by which this produce was raised, the annual labour of each slave must have been worth more than 16*l.*^h

Cape François, the capital of the French colony, has been denominated Cape Henry, by Christophe the negro, who was lately proclaimed king of Haiti, under the title of Henry the first. This African, the leader of a well-disciplined army, whose subjects are indebted to him for the blessings of liberty, has attempted to introduce into his dominions the splendour and ceremonies of a European court. His people carry on a trade with the Americans, the English, and the Danes, and the great pay to which his officers are entitled, has induced many foreigners to enter into his service. The kingdom of Haiti terminates at the desert plains, which are watered by the Artibonite.

The southern parts of this island^k are divided into republican cantons and governed by a council, that has lately acknowledged a president or chief in the person of Pétion^l the mulatto, who resides at Port-au-Prince, and considers his authority sanctioned by the example of the late republic in France. The French language is spoken in these states; and the catholic religion prevails not only in the republic, but in the kingdom of Haiti. Philip Dos, another chief, maintains his independence in the mountains of the interior.

Porto Rico, situated eastward of Hispaniola, is the next island in the chain of the Antilles. It is about a hundred and twenty miles in length, and forty in breadth; its mountains extend towards the southwest, and are not so lofty as those in St. Domingo. Layvonito is the highest mountain in the eastern, and Lopello in the southern part of the island.^m Herds of wild dogs roam on these hills, they are supposed to be sprung from a race of blood hounds brought from Spain by the first conquerors to assist them in destroying and in hunting down the natives, who fled to the fastnesses for safety and shelter. The wide savannas in the interior and those near the northern coast are fertile; many cascades add to the beauty of the mountains in these places, which are the healthiest districts in the island. The low grounds are unwholesome during the rainy season, but the land is fruitful and well watered by numerous rivulets. The Spaniards determined to remain on this island for the sake of its gold, but that metal has of late years been seldom observed. Timber, sugar, ginger, coffee, cotton, incense, flax, and hides, are among the productions of the island. Its mules are eagerly sought after in St. Domingo, Jamaica, and Santa Cruz; and it carries on a considerable trade in tobacco, salt, rice, maize, cassia, oranges, gourds, and melons. The capital, St. Juan de Porto Rico, is built on a small island on the northern coast, which communicates with the main island by means of a mole, and the whole forms a convenient harbour. Aguadilla is famed for the comparative salu-

^a D. Nieto, rapport au roi d'Espagne, inséré dans Dorvo-Soulastré, Voyage au Cap François, p. 90.

^b Walton's State of the Spanish Colonies, I. p. 117.

^c Dorvo-Soulastré, Voyage au Cap François, p. 50, 57, &c.

^d G. Alliermin, Précis des évènements de St. Domingue, p. 22, 407, &c.

^e Twenty-five of these leagues made up a degree.

^f Moreau de St. Méry, Description de St. Domingue, I. p. 3.

^g "163,014,000 livres tournois," 7,042,250*l.*—P.

^h Page, Traité du commerce des colonies.

ⁱ "The produce of 1788 was estimated at 17,3697,000 francs; the number of negroes employed was 452,000; which gave for the labour of each slave, 398 francs."—M.B.

^k Of the French part of the island.—P.

^l Boyer is, at present, chief or president of the whole island.—P.

^m Ledru, Voyage à Ténériffe, Porto-Rico, &c.

briety of its climate. San Germano is a considerable town, inhabited by the most ancient families on the island, and the small but pleasant town of Faxardo is situated on the eastern coast. Colonists might settle with advantage near the bays of Guanica and Guayanilla, and it is probable that these places may at some future period become more populous. About five leagues from Cape Pinero or the eastern extremity of Porto Rico, we may perceive the verdant and wooded heights of Biequen, a thinly inhabited island, which does not acknowledge the authority of Spain.^a The population of Porto Rico is at present unknown; it amounted about fifteen years ago to fourteen thousand freemen and seventeen thousand slaves.^b The inhabitants, faithful to the King of Spain, have afforded protection to several thousand colonists devoted to the royal cause. The annual revenue of the island has been valued at 17,209*l.* and the expenses of administration at 61,850*l.*^c ^d

It is necessary to give some account of the Bahama or Lucayos islands, before we examine more minutely the Lesser Antilles. The Lucayos are separated from the continent by the Gulf of Florida, or the New Bahama Channel, a broad and rapid current, and the Old Channel divides them from Cuba. Their number is not less than five hundred; many of them are barren rocks, but twelve, which are the most populous and the most fertile, contain about 13,000 inhabitants. The larger islands are generally fruitful, and their soil is the same as that of Carolina. Many British loyalists fled thither from the United States after the war of independence. The negroes are said to be more fortunate in these islands than their brethren in the Antilles. The owners preside over them, and they are not exposed to the lash of an overseer; their master is careful that their labour may be proportionate to their strength, and they have shown themselves worthy of this humane treatment by their industry and good conduct.^e Cotton, indigo, tortoise shell, ambergris, mahogany, logwood, and different kinds of fruit, are exported from these islands. During war, the inhabitants derive some profit from the number of prize vessels that are brought to their ports, and at all times from the shipwrecks that are so common in this labyrinth of shoals and rocks. Turk's Islands are at present in the hands of the English, who have strengthened them by fortifications.

Anegada, Virgin Gorda, and Tortola, are the principal English islands in the small archipelago to the east of Porto Rico. Sir Francis Drake is said to have called them the Virgin Islands in honour of Queen Elizabeth; but this is a mistake; Columbus himself gave them the name of Las Virgines, in allusion to the legend of the eleven thousand virgins in the Romish ritual. An early traveller, whose writings are preserved in Hakluyt's collection, calls this archipelago "a knot of little islands, wholly uninhabited, sandy, barren, and craggy." Their chief and almost only staple commodities consist in sugar and coffee; the contraband trade, which is very extensive, is also considered the most profitable.—The population of the three islands already mentioned amounted, in 1788, to 1200 whites and 9000 negroes.

The Danes became a commercial people after the Spaniards, the French, the English and the Dutch. They saw

the new world divided among other nations, and succeeded with difficulty in obtaining a small portion of its rich spoils. But their industry and wise policy increased the value of their scanty possessions; with the exception of Barbadoes and Antigua, no settlement is better cultivated, or proportionally more productive, than the Danish island of Santa Cruz. Its prosperity has of late increased, the condition of the negroes has been much improved; and the small island of St. Thomas is now an important commercial station. Thaarup supposes the surface of these two islands to be from thirty-six to forty square leagues; the population is in the ratio of a thousand souls to every square league, and the net revenue amounts to 100,000 rix-dollars, or nearly 17,000*l.* The sugar of Santa Cruz is of the finest quality, and its rum equals that of Jamaica. Christians'ad, the metropolis, is situated in the eastern part of the island. The whole settlement was purchased of France for 160,000 rix-dollars, or 30,000*l.*; many plantations on the island are believed to be now worth 60,000*l.* The largest harbour in St. Thomas may hold with safety a hundred ships of war; the storehouses are loaded with merchandise, brought from Europe or America. The small island of St. John is fertile, and its climate is comparatively healthy; but its cultivation has been hitherto neglected. Oxholm informs us that there are 71,453 English acres of good land^f in the Danish islands. The sugar plantations occupy thirty-two thousand and fourteen; and thirteen hundred and fifty-eight are planted with cotton.^g

Anguilla or Snake's Island, which belongs to the English, has received its name from its tortuous form; it is about nine or ten leagues in length, and not more than three at its greatest breadth. The soil abounds in chalk, and there are neither mountains nor rivers in any part of the island. A considerable quantity of salt is exported to New England, from a salt lake situated near the middle of Anguilla. The principal occupation of the inhabitants consists in rearing cattle, and cultivating Indian corn.

The coast of St. Martin is indented with bays, which makes it appear larger than it really is. The interior is mountainous; and the annual profits of a single salt marsh in this island exceed 12,000*l.* Many of the settlers are of English origin; one half of the island belongs to the French, the other to the Dutch.

Gustavus the Third, aware of the commercial advantages which Denmark derived from her colonies, was anxious to procure for Sweden some possessions in the West Indies. He obtained from France, in 1784, the island of St. Bartholomew, which lays between St. Christophers, Anguilla, and the Dutch island of St. Eustatia; thus, its situation enables its inhabitants to carry on with advantage a contraband trade. Although the country is mountainous, no springs or rivers have ever been observed in it. Gustavia, the chief town, and indeed the only one in St. Bartholomew, is contiguous to Carenage, a harbour which may admit a great many vessels at a time, but none drawing more than nine feet of water.^h The exports from this island consist of cassia, tamarinds, and sassafras.

The Dutch considered their islands in the West Indies as so many factories for carrying on their commerce, or per-

^a "An uninhabited island, claimed by Spain."—M.B.

^b "About 10 years since, (ed. 1817,) the population amounted to 136,000 souls, of which there were only 17,000 negroes."—M.B.

^c Ledru, Voyage à Ténériffe, &c.

^d "Revenue, 413,000 francs; expenses, 1,464,000 francs, sometimes more than two millions francs."—M.B.

^e M'Kinnen's Travels.

^f "La totalité du terrain est de 71,453 acres Anglais."

^g Oxholm, Etat des Antilles Danoises.

^h Euphrasen. Voyage à Saint Barthélemy.

haps their smuggling trade with the subjects of other princes; and were always much more solicitous about improving their possessions in Guiana. St. Eustatia is about two leagues in length, and one in breadth; it consists of two mountains, and a deep valley between them. On the eastern summit there is an ancient crater, nearly enclosed by rocks of gneiss. Although no springs have ever been seen in the island, the inhabitants cultivate sugar and tobacco. It has been stated that the population amounts to five thousand whites, six hundred mulattoes and eight hundred slaves.^a Saba, an island adjoining St. Eustatia, is about twelve miles in circumference; the sea in its vicinity is shallow, and only small vessels can approach it. The coast is surrounded by rocks, and on this account the road from the most frequented landing place to the heights is difficult of access. There is an agreeable valley on the hills, watered by frequent showers, which render it very fertile. The climate is healthy, and Dutch writers declare, that the European women in Saba retain their looks longer than those in any other West Indian island. The inhabitants are chiefly composed of artisans and tradesmen, and their moderate wants are amply supplied by the produce of their industry.

The chain of the Antilles bends at this place; Antigua and Barbuda may be regarded as the eastern links, which connect it with the other islands.^b Antigua, or Antego, is more than seven leagues in length, and as many in breadth. Mr. Edwards, the most accurate historian of the British colonies in the West Indies, tells us, that "it contains about 59,838 English acres, of which 34,000 are appropriated for pasturage and the growth of sugar." This island, although formerly considered of little value, has become important, and English Harbour is the best place in these seas for refitting British vessels. An arsenal, and a royal navy yard, in which ships of war are careened, have been erected by government. The population may amount to forty thousand inhabitants, of whom, says Mr. Young, thirty-six thousand are in a state of slavery;^c but the free population has increased, and that of the negroes diminished, since the publication of that author's work on the West Indies. The governor of the Leeward Caribbean islands resides at St. John, which is the great commercial town of Antigua. The exports consist of sugar, ginger, and tobacco; but the harvests are so variable, that it is difficult to ascertain their average amount; the frequent droughts to which the island is exposed, have often destroyed every sort of vegetation. In the year 1788, there was no rain for the space of seven months; and the inhabitants must then have perished had they not been supplied with provisions from foreign countries.

Barbuda is about twelve leagues north of Antigua, and contains more than 1500 inhabitants. The soil is well adapted for pasturage; and the settlers trade chiefly in oxen, horses and mules, with which they supply the neighbouring islands. The air is salubrious, and invalids resort thither from other parts of the West Indies. Turtles are found on the shore; deer and different sorts of game abound in the woods.

St. Christopher's, one of the islands in the western divi-

sion of this chain, is about forty-two miles in circumference; there are in this settlement 43,726 acres, of which 17,000 are well adapted for the growth of sugar. The soil consists of a dark gray loam; it is easily penetrated by the hoe, and yields more sugar in proportion to its extent than any other land in the West Indies. Besides the cane, cotton, ginger and many tropical fruits are cultivated by the colonists. St. Christopher's, or, as it is more commonly called, St. Kitts, contains a population of 28,000 souls, and the proportion between the free inhabitants and the slaves is as one to thirteen.

Nevis and Montserrat are two small islands situated between St. Christopher's and Guadaloupe; they are in the possession of the English, and are fertile in cotton, sugar, and tobacco.

Guadaloupe consists of two islands separated from each other by a narrow channel; the easternmost, or Grande-Terre, is about six leagues broad, and fourteen in length; the other, or Basse-Terre, is fifteen leagues in length by seven in breadth. The small islands of Desceada^e on the east, Marie-Galante on the south-east, and the Isles des Saintes on the south, are subject to the governor of Guadaloupe. The surface of all these islands is equal to 334,142 English acres;^f the population has been recently estimated at 159,520 souls.^g According to the census of 1788, the whites amounted to 13,466, the free people of colour to 3044, and the slaves to 85,461; so that there were not at that time more than 101,971 inhabitants. The rapid increase of population must be in part attributed to the frequent emigrations from St. Domingo. There are several volcanic mountains in Basse-Terre, and although they are no longer subject to explosions, one of them, which is called La Soufriere, still emits clouds of smoke. Sulphurous pyrites, pumice stone, and many other volcanic productions, are found in the vicinity. A warm spring has been observed in the sea near Gcaive; its temperature has not been ascertained, but Father Labat assures us that he has boiled eggs in it. Basse-Terre is agreeably diversified by hills, woods, gardens and enclosures, which form a striking contrast with the marshy and sterile land on the eastern island. All the rocks near the sea consist of madrepore.^h The wild lemon-tree, the plant that produces galbanum,ⁱ the Erythrina corallodendrum, and the *Volkenaria spicata*, grow to the enclosures. The sugar-cane reaches to a great height, but is of an inferior quality; the coffee too is not considered equal to that of Martinico. The bees in this island are black; their honey is very liquid, and of a purple colour. The city of Basse-Terre is adorned with many fine buildings, fountains, and public gardens. The fort that defends it commands an open road, which has all the conveniences of a safe harbour. Pointe à Pitre, the metropolis of Grande-Terre, is unhealthy by reason of the marshes in its neighbourhood; its spacious port is considered one of the best in the Antilles. Desceada is famed for its cotton; coffee and sugar are cultivated on the hills of Marie-Galante.

Dominica, situated between Guadaloupe and Martinico, was so called by Columbus, from its being discovered on a Sunday. The value of this island must not be judged of

^a Population 20,000, of whom 15,000 are blacks.—*Morse*.

^b "The chain of the Antilles here becomes twofold; Barbuda and Antigua form the eastern division of the entire chain."—M.B.

^c West India Common-Place Book.

^d Population, in 1817, 35,739, of whom 2102 were whites, 158 free blacks, and 31,152 slaves.—*Morse*.

^e "Desirade."

^f Statistique Générale de la France.

^g Isert, Voyage aux îles Caraïbes.

^h "204,085 hectares."

ⁱ *Calophyllum esalata*

merely from its productions; its situation enabled the English to intercept in time of war the communications between France and her colonies.^a The soil is very light, and well adapted for the growth of coffee; the hills, from which several rivers descend, are covered with the finest wood in the West Indies, and several valuable sulphur mines have been discovered by the colonists. According to the statements of some authors, scorpions and serpents of a great size are often seen on the island; but Mr. Edwards, and several writers, tell us, on the other hand, that these animals, if they really exist, are very rare, and that many of the colonists have never observed them. Dominica has been raised to the rank of a distinct government, on account of its importance. The staple commodities are maize, cotton, cacao, and tobacco.

Before the war of 1756, Martinico was considered the principal island possessed by the French in the Antilles; its store-houses were filled with the merchandise of Europe; a hundred and fifty ships traded to its ports; its commerce extended to Canada and Louisiana. Although Martinico is still an important island, it has not recovered its former grandeur. The extent of surface in this settlement is supposed to be about 212,142 acres;^b it is full of steep mountains and rugged rocks. Piton de Carbet, one of the highest, is about 812 feet above the level of the sea.^c The shape of this calcareous mountain resembles a cone, and it is on that account, as may be readily believed, very difficult of access. The palm trees with which it is covered become more lofty and abundant near the summit. Martinico is better supplied with water, and less exposed to hurricanes, than Gaudaloupe; the productions of both islands are nearly the same. Its population was estimated at 110,000 souls, but it appears from the census of 1815, that it amounted only to 95,413 inhabitants, viz. 9206 colonists of European origin, 8630 free people of colour, and 77,577 slaves. There are several bays and harbours in Martinico, and Fort Royal is built on one of them. This harbour, although not so large as that of Pointe à Pitre in Gaudaloupe, is spacious, and possesses many advantages. St. Pierre is the most commercial town in the Lesser Antilles, and M. Isert informs us that it contains 2080 houses, and 30,000 inhabitants.

The island of St. Lucia, now belonging to England, was long a subject of contention between that country and France. The soil is fertile; many of the eastern mountains still retain the marks of former volcanoes. The climate is very warm and unhealthy; it has been said that negroes have been destroyed by the venomous serpents in the woods and marshes; Mr. Edwards, however, denies the truth of this assertion. The island has been devastated by war; its cultivation, though in a very flourishing state, might be still much improved. The official value of the exports, in 1810, was less than 44,000*l.*; its imports in the same year amounted to 193,000*l.*; and the population was equal to 20,000 souls. Carenage, so called from three careening places on the western coast, one for large ships and two for small vessels, is the best sea-port in St. Lucia. Thirty sail of the line, though not moored, may be there sheltered from

hurricanes. Two vessels abreast cannot sail into it from the narrowness of the entrance, but the harbour may be cleared out in less than an hour. This place is unhealthy and thinly inhabited, notwithstanding the great advantages of its situation.

St. Vincent, an island to the south of St. Lucia, is remarkable for its fertility, and produces a great quantity of sugar and indigo. The bread-fruit tree, brought originally from Otaheite, has succeeded beyond the expectation of the colonists. A lofty range of hills runs through the centre of this island; during the earthquake, which took place on the 30th of April, 1812, there was an eruption from La Soufriere, the most northerly mountain in this chain. The eastern coast is peopled by the *Black Caribs*, a mixed race of Zambos descended from the Caribs and the fugitive negroes of Barbadoes and other islands.^e The population of the English settlement may amount to 23,000 inhabitants, the greater number of whom are in a state of slavery. Kingstown, the chief town in St. Vincent's, is the residence of the governor, whose jurisdiction extends over several small islands.

The Grenadines are contiguous, and united to each other by a ridge of calcareous rocks, which appear to be formed by marine insects; "they resemble in every respect," says a learned naturalist, "the coral rocks in the South Sea."^f Cariacou and Isle Ronde^g are the principal islands in this group. The former is fruitful, well cultivated, and equal in extent to 6913 acres. It has produced in some years a million of pounds of cotton, besides corn, yams, potatoes, and plantations sufficient for the consumption of its negroes. There are about five hundred acres of excellent land in Isle Ronde, which are well adapted for pasturage and the cultivation of cotton.

The English island of Grenada is situated near the Grenadines; its population amounted, in 1815, to 31,272 souls; there were, at the same time, 29,381 slaves, but at present they are less numerous.^h A lake, on the summit of a central mountain, is the source of many rivers that adorn and fertilize the island. Hurricanes are little known in Grenada; some of its numerous bays and harbours might be easily fortified, and rendered a secure station for ships. The chain of the Antilles terminates at this island; Barbadoes, Tobago, and Trinidad, form a distinct group.

Barbadoes is the easternmost island in the West Indies; when the English landed there for the first time, in 1605,ⁱ it was uninhabited and covered with forests. They observed no herb or root that could be used for the food of man; and the woods were so thick that the colonists had great difficulty in clearing a quantity of land, the produce of which might be sufficient for their subsistence. Every obstacle was at last surmounted; and the first inhabitants discovered that the soil was favourable for the growth of cotton and indigo, and that tobacco, which began then to be used in England, might be advantageously cultivated. Colonists flocked thither in so great numbers, that, about forty years^k after the first settlement, the population amounted to fifty thousand whites and a hundred thousand negro and Indian slaves; but this flourishing condition lasted only for half a

^a In the original, "it obstructed the communications between Guadalupe and Martinico."—P.

^b "127,285 hectares."

^c Isert, Voyage.

^d This mountain is said, in the original, to be 1000 toises above its base, which is itself 200 or 300 toises above the level of the sea.—P.

^e Goldsmith's Geographical Grammar.

^f Leblond, Voyage aux Antilles, I. p. 273.

^g Cariacou and Redonda.

^h Parliamentary Reports, 1815.

ⁱ It was discovered by the English in 1605, but the colony was not established till 1624.—P.

^k "25 years." In 1670, (*Ed. Encyc.*) i. e. 46 years after the first settlement.—P.

century. The present population, though much reduced is still sufficiently numerous for an island about twenty-one miles in length, and fourteen in breadth. The inhabitants have been lately calculated at ninety thousand; three fourths of them are made up of slaves. The governor resides at Bridgetown, the chief city in Barbadoes; the harbour of this place is nearer the ancient continent than any other in the Antilles.

Tobago is about eight leagues north-north-east from Trinidad. The formation of both these islands differs widely from that of the Antilles, and mineralogists suppose that they are a continuation of the mountainous chain of Cumana, on the South American continent.^a The hills in these two islands are chiefly composed of schistus; no granite rocks have ever been observed on them. The position of Tobago, on the strait which separates the Antilles from America, renders it important in time of war. Sugar and cotton might be raised in great quantities on its rich and still virgin soil, and the finest fruits of the tropics grow on the island; its figs and guavas are considered the best in the West Indies. Cinnamon, nutmegs, gum-copal, and five different sorts of pepper, are some of its productions. There is one of its commodious bays or inlets on the east, and another on the west coast, in which ships may be sheltered from every wind. The population, according to the last census, amounted to 18,000 individuals, of whom 15,426^b were negroes.

Trinidad is situated between Tobago and the continent of South America, from which it is separated by the Gulf of Paria and two straits; the one, between the Oronoco and Trinidad is called the Serpent's Mouth; the other, between Trinidad and Cape Paria in Cumana, still retains the name of the Dragon's Mouth, given it by Columbus. This island is about sixty or seventy miles from east to west, and nearly fifty from north to south.^c It was at one period thought very unhealthy; Raynal was the first who refuted that error. The mountains of Trinidad are not so lofty as some of the cloud-capt heights on the Antilles; it has been already observed, that their geological construction is different; it may be added, that their direction, and various other circumstances, indicate that they were separated from those which extend along the shore of Cumana, at that unknown period, when the waters of the Guarapiche, and the western branches of the Oronoco, opened for themselves a passage into the ocean through the channel of the Dragon's Mouth. Different species of palms, and particularly the cocoa, grow in the southern and central parts of Trinidad. The island produces sugar, coffee, good tobacco, indigo, ginger, a variety of fine fruits, maize, cotton, and cedar wood. The most remarkable phenomenon in Trinidad is a bituminous lake, situated on the western coast, near the village of La Brea. It is nearly three miles in extent, of a circular form, and about eighty feet above the level of the sea. Small islands covered with plants and shrubs are occasionally observed on the lake; but it is subject to frequent changes, and its verdant isles often disappear. The bituminous matter is hard near the surface, and less consistent at the depth of a foot; petroleum is found in some of the cavities. The pitchy substance of the lake is melted with tallow, and used at Trinidad for

naval purposes. The court of Madrid permitted the inhabitants of different European nations to settle on this island, and a great many French colonists migrated thither from Grenada; but the English obtained latterly possession of this settlement by the treaty of peace in the year 1801. Trinidad is important on account of its fertility, its extent, and its position, which commands the Oronoco and the straits of the Dragon's Mouth. St. Joseph d' Oruna, the nominal capital, is not much larger than a village, and consists of two or three hundred neatly built houses. Puerto d'España is situated at no great distance from St. Joseph; its harbour and roads are much frequented by ships. The port of Chagacamus is the best harbour in the island. The population of the island is estimated at 28,000 inhabitants.^d It has been supposed, from the size and extraordinary fruitfulness of Trinidad, that it might produce, if properly cultivated, more sugar than the whole of the Leeward Islands.^e It possesses also, in common with Tobago, the great advantage of being beyond the ordinary reach of hurricanes, so that ships may anchor there without being exposed to those dreadful storms by which they have been sometimes destroyed in the harbours of more northern islands.^f

As we have already given an account of Margarita as a dependency of Caraccas, there only remains for us to notice three islands on the coast of South America, which belong at present to the Dutch. The most considerable of these is Curaçoa, an island covered with a thin stratum of soil, about twelve leagues in length, and three or four in breadth. The land is arid and sterile; there is only one well on the island, and the water from it is sold at a high price. The Dutch have planted tobacco and sugar on this light and rocky soil. Several salt marshes yield a considerable revenue; but the wealth of the island depends chiefly on its contraband trade. Williamstadt, the capital, is one of the neatest cities in the West Indies; the public buildings are magnificent, the private houses are commodious, and the clean streets remind the traveller of those in the Dutch towns. The port of Curaçoa, though narrow at its entrance, is every where else spacious, and protected by the fort of Amsterdam. The population of this settlement consisted in the year 1815, of 2781 whites, 4033 free people of colour, and 6026 slaves; thus, the total number of inhabitants amounted at that time to twelve thousand eight hundred and forty. The colonists at Bonaire and Aruba, two small adjacent islands, employ themselves chiefly in rearing cattle.

The trade carried on in the Archipelago, which has been described, has tended to advance the industry and extend the commerce of Europe. The wealth which Holland, France, and England, have derived from it, has contributed more to the national prosperity of these countries, than all the gold and silver of the American continent.

The number of whites in the British colonies has increased from forty-nine thousand seven hundred and sixty-two, to fifty-eight thousand nine hundred and fifty-five, the mulattoes from ten thousand five hundred and sixty-nine, to twenty-one thousand nine hundred and sixty-seven, and the slaves from four hundred and sixty-five thousand four hundred and seventy-six, to five hundred and twenty-four

^a Dauxion Lavaysse, Voyage à la Trinidad, I. p. 46, &c.

^b "Six sevenths."

^c "It is about 30 leagues long, from N. E. to S. W. and 19 broad."—M.R. This island is about 90 B. miles in length, and the medial breadth may be about 30.—Pinkerton.—P.

VOL. II.—NOS. 87 & 88.

^d Population, in 1805, 2,261 whites, 3,275 free blacks, and 19,709 slaves. Total, 25,245.—Morse.

^e "Iles du vent," Windward Islands.

^f Edward Young's West India Common-Place Book.

thousand two hundred and five.* The great increase of free people of colour in the British West Indies, must be partly attributed to natural causes, and partly to the numerous emigrations from St. Domingo. Twenty-four thousand four hundred and ninety-five slaves were imported into these islands in the year 1788, and the number sent from them amounted to 11,058. During the year 1803, there was an importation of 19,960, and an exportation of 5232. Before the abolition of the slave trade, twenty thousand negroes were annually imported into the colonies by British settlers.^b

The duties on sugar imported into Great Britain, amounted,

In the year 1773, to	468,947l.
— 1787, to	954,364l.
— 1804, to	2,422,669l.

The value of the sugar imported annually into England, was calculated some years ago at 7,063,265l.

One hundred and twenty thousand puncheons of rum, are distilled on an average in the British islands; and this quantity is disposed of in the following manner :

United States,	37,000 puncheons.
English colonies in North America,	6,250
Vessels trading to the Antilles,	10,000
West Indian garrisons and colonists,	30,750
Great Britain and Ireland,	36,000

England obtained from the Antilles,

In 1793,	9,164,893 lbs. of cotton.
— 1804,	20,529,878

All this wealth has been bought at a dear rate; it has been purchased with the blood and degradation of myriads of our fellow creatures, reduced to a condition contrary to the law of nature and the spirit of christianity. Some planters may be humane, merciful, and compassionate; the colonial assemblies may have adopted legislative measures to restrain the cruelty of others; but the sufferings of the negroes still entitle them to our commiseration. This is put beyond a doubt by the excessive mortality of these beings, which cannot proceed from the climate, for their own is as humid, as sultry, and more unwholesome. It may, too, be readily believed, that planters are interested in the preservation of their creole negroes: but their care has been vain, and the race has continually decreased. Slavery, the misery of exile, and every sort of bodily torment to which the negroes are exposed, have shortened their existence. These Africans have never increased according to the common law of nature; and it has been found necessary in several colonies to supply every year the deficiencies in the number of their slaves by fresh importations. It may be seen in the public records at Martinico, that, in the year 1810, the number of births from a population of 77,500 slaves, did not exceed 1250, or that they were in the ratio of one to sixty-two. The negroes, it has been affirmed, are stubborn, revengeful, not to be subdued by mild treatment, but to be driven by the lash. This pretext has been alleged to justify the cruelty of their masters. A few individuals of that description may be found amongst them, but the character of the negroes is widely different. They are ignorant, but docile, gentle,

patient, and submissive. Cruel men amongst the colonists, or malefactors banished from Europe, and raised afterwards to the rank of overseers, were wont to treat their slaves as beasts of burden; nay more, some Spanish writers maintain seriously that a negro and American Indian have not a soul, and there is too much reason to believe that this doctrine has been more or less acted upon in every European settlement in the West Indies.

If the sultry regions in which the sugar-cane is produced can only be cultivated by negroes, or if the welfare of these possessions depend on that race, it must be a desirable object to add to the riches of these islands by improving the condition, and by increasing the numbers of men whose labour has been said to constitute the wealth of the colonies. Such ends might probably be attained by legislative enactments; the enormities which, from length of time, have become habitual to a great many planters, might be checked. When the slaves were assured that their lives and health could not be endangered by any master, it might be lawful for them to acquire property, and thus they would be made to love a country which has been so long watered with their tears. Were marriages held sacred, and some attention bestowed on the education of black children, the vices to which the slaves are addicted might be repressed. The transition from a state of bondage to that of husbandmen, could be rendered easy, safe, and highly advantageous to the colonists, by adopting a proper system of instruction, and by holding out to the negroes the consolations of christianity.

In order to make our readers better acquainted with this country, we shall attempt to describe a morning in the Antilles. For this purpose, let us watch the moment when the sun, appearing through a cloudless and serene atmosphere, illumines with his rays the summits of the mountains, and gilds the leaves of the plantain and orange trees. The plants are spread over with a gossamer of fine and transparent silk, or gemmed with dew drops, and the vivid hues of industrious insects, reflecting unnumbered tints from the rays of the sun. The aspect of the richly cultivated valleys is different, but not less pleasing; the whole of nature teems with the most varied productions. It often happens, after the sun has dissipated the mist above the crystal expanse of the ocean, that the scene is changed by an optical illusion. The spectator observes sometimes a sand bank rising out of the deep, or distant canoes in the red clouds, floating in an aerial sea, while their shadows, at the same time, are accurately delineated below them. This phenomenon, to which the French have given the name of mirage, is not uncommon in equatorial climates. Europeans may admire the views in this archipelago during the cool temperature of the morning; the lofty mountains are adorned with thick foliage; the hills, from their summits to the very borders of the sea, are fringed with plants of never-fading verdure; the mills and sugar works near them are obscured by their branches or buried in their shade. The appearance of the valleys is remarkable; to form even an imperfect idea of it, we must group together the palm tree, the cocoa nut, and mountain cabbage, with the tamarind, the orange, and the waving plumes of the bamboo cane. On these plains we may observe the bushy oleander, all the varieties of the

* The slave population of the British West Indies, in 1824, amounted to 715,385.—P.

^b "Les établissemens Britanniques apportaient aux colonies étrangères environ 20,000 esclaves par an."

Jerusalem thorn and African rose, the bright scarlet of the Cordium, bowers of jessamine and Grenadilla vines, and the silver and silky leaves of the Portlandia. Fields of sugar cane, the houses of the planters, the huts of the negroes, and the distant coast lined with ships, add to the beauty of a West Indian landscape. At sun-rise, when no breeze ripples the surface of the ocean, it is frequently so transparent, that one can perceive, as if there were no intervening medium, the channel of the water, and observe the shell-fish scattered on the rocks, and the medusæ reposing on the sand.

A hurricane is generally preceded by an awful stillness of the elements; the air becomes close and heavy, the sun is red, and the stars at night seem unusually large. Frequent changes take place in the thermometer, which rises sometimes from eighty to ninety degrees.* Darkness extends over the earth; the higher regions gleam with lightning. The impending storm is first observed on the sea; foaming mountains rise suddenly from its clear and mo-

* Beckford.

tionless surface. The wind rages with unrestrained fury; its noise may be compared to the distant thunder. The rain descends in torrents, shrubs and lofty trees are borne down by the mountain stream; the rivers overflow their banks and submerge the plains. Terror and consternation seem to pervade the whole of animated nature; land birds are driven into the ocean, and those whose element is the sea seek for refuge in the woods. The frightened beasts of the field herd together, or roam in vain for a place of shelter. It is not a contest of two opposite winds, or a roaring ocean, that shakes the earth; all the elements are thrown into confusion, the equilibrium of the atmosphere seems as if it were destroyed, and nature appears to hasten to her ancient chaos. Scenes of desolation have been disclosed in these islands by the morning's sun,—uprooted trees, branches shivered from their trunks, and the ruins of houses strewed over the land. The planter is sometimes unable to distinguish the place of his former possessions. Fertile valleys may be changed in a few hours into dreary wastes, covered with the carcasses of domestic animals and the fowls of heaven.

Names of Places.	Latitude N. deg. min. sec.	Longitude W. from London. deg. min. sec.	Sources and Authorities.
GREAT ANTILLES.			
ISLE OF CUBA.			
Havannah (plaza dieja)	23 8 15	82 22 0	A. Humboldt. Galiano Robredo. Oltmanns' Researches.
Batabano	22 23 19	82 25 41	Lemaur and Oltmanns.
Trinidad	21 48 20	80 16 38	Humboldt. Oltmanns.
Matanzas (city)	23 2 28	81 37 21	D. Ferrer.
Cape St. Antonio	21 54 0	84 57 15	Humboldt.
Cape de la Cruz	19 47 16	77 44 15	Cevallos. Oltmanns.
Pico Tarquinio	19 52 57	76 50 7	Idem.
Point Maizy	20 16 40	74 7 53	Idem.
Point Guanós	23 9 27	81 43 22	Oltmanns.
Idem		81 41 15	Ferrer.
JAMAICA.			
Port Royal	17 58 0	76 52 30	Conn. des Temps, and Oltmanns.
Kingston	18 0 0	76 52 15	Oltmanns.
Cape Morant	17 5 45	76 15 8	Idem.
Cape Portland		76 58 20	Idem. and Humboldt.
ST. DOMINGO.			
Cape François, town	19 46 20	72 18 0	Conn. des Temps, and Oltmanns.
Port-au-Prince	18 33 42	72 27 11	Idem.
St. Domingo	18 28 40	69 59 37	Idem.
Mole St. Nicholas	19 49 20	73 29 33	Idem.
Cayes	18 11 10	73 50 19	Idem.
Cape Samana	19 16 26	69 13 33	Idem.
Idem	19 16 30	69 9 0	D. Ferrer.
Cape Enganno	18 34 42	68 25 37	Cevallos. Oltmanns. Conn. des Temps.
Cape Raphael		68 58 32	Idem.
Cape Dame Marie	18 37 20	74 33 32	Oltmanns.
La Gonaïve, west point	18 52 40	73 24 33	Idem.
PORTO-RICO.			
Porto-Rico (town)	18 29 10	66 13 15	Humboldt, Serra, and Churruca, by lunar distances, occultations, &c.
Cape St. John, north-east point	18 26 0	65 43 15	Ferrer, calculated by Oltmanns.
Idem. N. W. point	18 31 18	67 12 18	Idem.
Aguadilla, or city of San Carlos	18 27 20	67 12 30	Idem.
Casa de Muertos, rock	17 50 0	66 38 15	Idem.*
BAHAMA ISLES.			
Turk's Islands, (Key or Sandbank)	21 11 10	71 14 52	Oltmanns' Researches, &c.
Caicos Islands, (Providence Keys)	21 50 46	72 25 0	Idem.
Grand Inague, north-east point	21 20 13	73 12 7	Idem.
Crooked Isle, E. point	23 39 0	73 56 0	Idem.
San Salvador, N. point	24 39 0	75 51 15	Idem.
Providence Island (Nassau)	25 4 33	77 22 6	Conn. des Temps.
Idem		77 26 20	D. Ferrer
Abaco Island, N. E. point	26 29 52	77 3 28	Idem.
BERMUDAS.			
St. George	32 20 0	64 52 53	Mendoza Rios.
N. E. point	32 17 4	64 51 53	Idem.
THE LESSER ANTILLES.			
St. Thomas, port	18 20 30	65 3 6	Oltmanns' Researches.
St. Croix, port	17 44 8	64 48 29	Idem.
St. Martin, summit	18 4 28	63 6 27	D. Ferrer.
Saba, the middle	17 39 30	63 20 50	Oltmanns.

Names of Places.	Latitude N. deg. min. sec.	Longitude W. from London. deg. min. sec.	Sources and Authorities.
St. Eustatia, the road	17 29 0	63 5 0	Oltmanns.
Antigua, Fort Hamilton	17 4 30	61 55 0	Idem.
Guadaloupe, Basse-Terre	15 59 30	61 45 0	Idem.
Dominica, Roseau	15 18 23	61 32 15	Idem.
Martinico, Fort Royal, Idem. St. Pierre	14 35 49	61 6 0	Idem.
Idem. St. Pierre	14 44 0	61 12 40	Idem.
Barbadoes, Maskelyne's observatory	13 5 15	59 36 18	Idem.
Idem. Fort Willoughby	13 5 0	59 36 33	Idem.
Grenada, Fort Royal		61 48 0	Idem.
LEeward ISLES. ^b			
Tobago, N. E. point	11 10 13	60 27 15	Idem.
Tobago, S. W. point	11 6 0	60 49 0	Idem. ^c
Trinidad, Puerto d'España	10 38 42	61 38 0	Idem.
Dragon's Mouth		62 12 20	A. Humboldt, doubtful.
Idem.		61 53 0	Solano, manuscript chart.
Margarita, Cape Macanao	11 3 30	64 27 15	Oltmanns.
Orchilla, West Cape		66 14 16	Idem.
TERRA-FIRMA, GUIANA, &c.			
Porto Bello,	9 33 9	79 35 15	Conn. des Temps
Carthagena,	10 25 38	75 30 0	Humboldt, Noguera, Observations of satellites, &c.
Turbaco	10 18 5	75 21 40	Humboldt Oltmanns.
Mompox	9 14 11	74 27 28	Idem.
Honda	5 11 45	75 1 36	Idem.
Santa Fé de Bogota	4 35 48	74 14 0	Idem.
Cartago	4 44 50	76 6 0	Idem.
Popayan	2 26 17	76 39 30	Idem.
Pasto	1 13 5	76 41 0	Idem.
Santa Marta	11 19 39	74 8 30	Oltmanns' Researches.
Caraccas	10 30 50	67 5 0	Humboldt. Numerous astronomical observations.
Idem.	10 30 24	66 50 25	D. Ferrer.
Cumana	10 27 49	64 10 0	Humboldt.
Cumanacoa	10 16 11	63 58 35	Idem.
St. Thomas, N. Guiana	8 8 11	63 55 6	Idem.
San Fernando de Apures	7 53 12	68 0 0	Idem.
Maypures	5 13 32	68 17 18	Idem.
Esmeralda	3 11 0	66 3 4	Idem.
Fort San Carlos	1 53 42	67 38 24	Idem.
Cayenne	4 56 15	52 15 0	Conn. des Temps.
PERU, CHILI, &c.			
Quito	0 13 17	78 55 15	Humboldt, astronomical observations.
Riobamba	1 41 46	79 0 15	Idem. Bouguer, &c.
Loxa		79 24 28	Idem.
Guayaquil	2 11 21	79 56 15	Idem.
Truxillo	8 5 40	79 19 23	Idem.
Lima	12 2 45	77 7 15	Idem.
Callao, Castle of St. Philip	12 3 30	77 14 0	Humboldt. Observation of the passage of Mercury over the sun's disk.
Arica	18 26 40	70 16 5	Conn. des Temps, astronomical observations.
Cape Moxillones	23 5 0	70 25 15	Idem.
Copiapo	27 10 0	71 5 15	Idem.
Coquimbo	29 54 40	71 19 15	Idem. Astronomical observations.
Valparaiso	33 0 30	71 38 15	Conn. des Temps. Astron. observations.
Concepcion	36 49 10	73 5 0	Idem. idem.
Talcahuana	36 42 21	73 39 12	Idem.
Valdivia	39 50 30	73 26 15	Idem.
San Carlos, (Isle of Chiloe)	41 53 0	72 55 0	Idem.

* These observations correct the chart of Lopez, with reference to the general position of the isle of Porto-Rico.

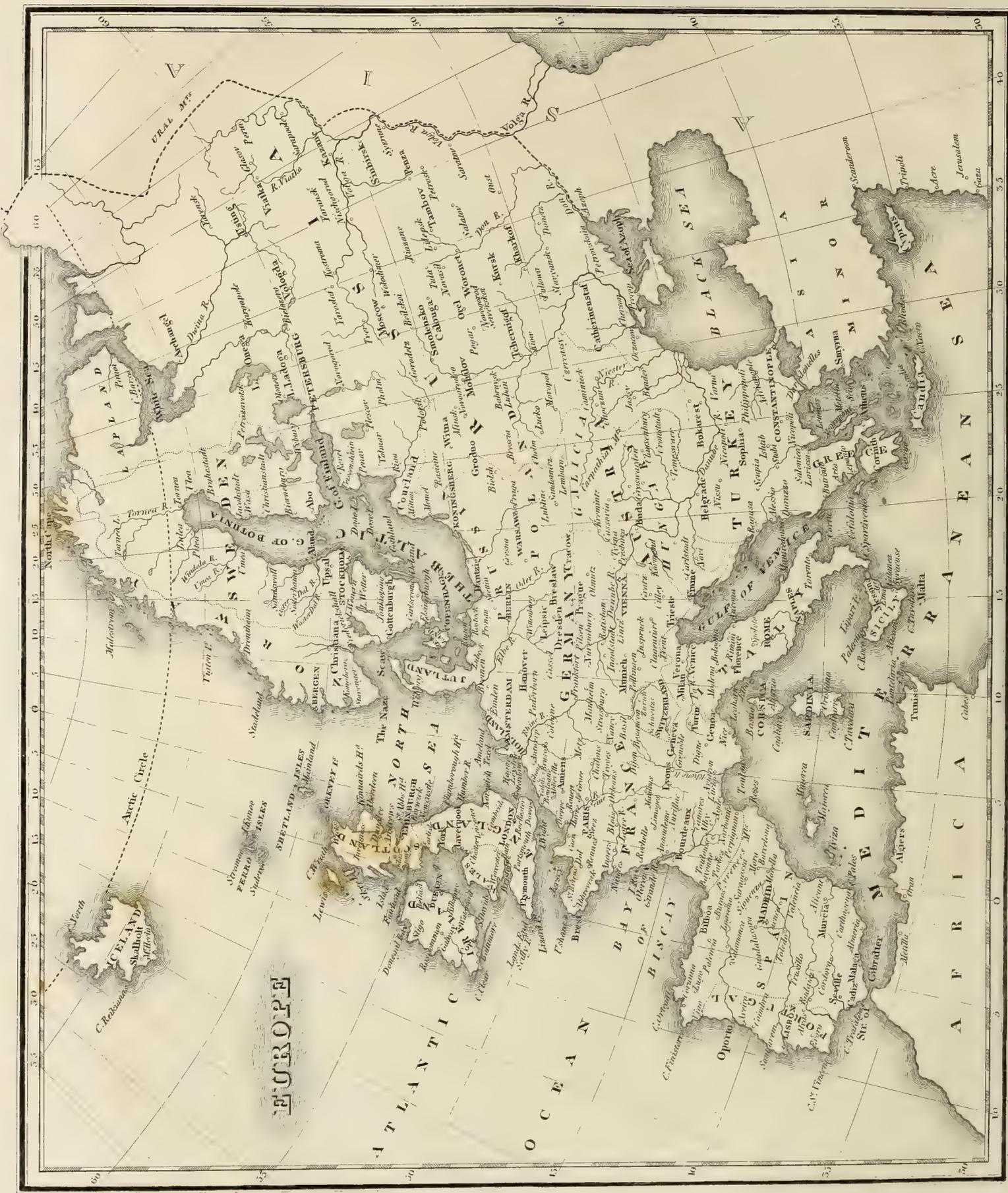
^b The terms, leeward and windward islands, are also used in the contrary sense: the former applied to the Northern, the latter to the Southern Antilles.—P.

^c The positions of these places have been variously stated by different authors—Tobago, S. W. point, latitude, according to Jeffreys, 11 deg. 10 min.; Arrowsmith, 10 deg. 56 min. Longitude, according to Jeffreys, 65 deg. 53 min. 47 sec.; Arrowsmith, 63 deg. 13 min. 15 sec.

Names of Places.	Latitude S.	Longitude W. from London.	Sources and Authorities.	Names of Places.	Latitude N.	Longitude W. from London.	Sources and Authorities.
	deg. min. sec.	deg. min. sec.			deg. min. sec.	deg. min. sec.	
Isle Madre de Dios, N. point	49 45 0	75 47 15	Conn. des Temps.	Cape St. Antonio, N. point	36 20 30	56 45 0	Spanish Chart of Rio de la Plata.
Cape Pilares	52 46 0	74 54 15	Idem.	Idem. S. point	36 55 20	56 48 45	Hurd.
Isle Juan Fernandez	33 40 0	78 58 15	Idem.	ISLES NEAR BRAZIL.			
Isle Masafuero	33 45 30	80 37 15	Idem.	LAT. N.			
Albemarle Island, N. W. point	LAT. N. 0 2 0	91 30 0	Idem.	San Paul; or Penedo de San Pedro	0 55 0	29 15 0	R. Williams.
COASTS OF BRAZIL AND LA PLATA.				Idem		29 15 0	Oriental Navig. Mean of the whole.
Para	LAT. S. 1 28 0	49 0 0	Conn. des Temps.	Idem		28 35 0	Ephem. de Coimbra.
Isle of St. John the Evangelist	1 15 0	45 52 50	Nautical Ephemerides of Coimbra, 1807. ^b	Fernando Noronha, the Pyramid	3 55 15	32 35 5	Orient. Navig.
San Lu's de Maranham	2 29 0	44 2 0	Orient. Nav. Mean of several chronometrical observations.	Roccas, (the Rocks,)	3 52 20	33 31 0	Idem.
Idem		44 0 0	D. Jose Patriceo.	Abrolhos, N. point	17 40 0	39 56 0	Ephem. of Coimbra. ^d
Seara	3 30 0	38 48 0	Oriental Navigator.	Idem. S. point	18 24 0	40 0 0	Idem.
Idem		38 28 0	D. Jose Patriceo.	Idem. E. point	18 11 0	36 5 0	Idem.
Cape Saint Roque, point Petetinga	5 2 30	35 43 0	Oriental Nav. Mean of the whole.	Santa Barbara, Islet	18 4 0	39 35 0	Idem.
Recife, port of Pernambuco	8 4 0	35 7 0	Ephem. of Coimbra.	Triniklad, S.E. point	20 31 45	29 19 0	Flinders, lunar distances.
Olinda de Pernambuco	8 13 0	35 5 0	Idem.	Idem		29 23 0	Idem. chronometer.
San Salvador de Bahia, fort	12 59 0	38 33 0	Oriental Nav. Mean of many observations.	Idem. the centre	20 32 30	29 9 0	Horsburgh, observations of ten English vessels.
Cape Frio	22 54 0	42 8 0	Mendoza Rios, Astronomical tables.	Idem	20 31 0	28 36 44	La Peyrouse, lunar distances. ^e
Idem		41 53 0	Broughton. Heywood.	Santa Maria d'Agosta, Martin Vaz	20 32 0	29 39 52	Ephem. of Coimbra. ^f
Idem		41 36 15	Krusenstern.	Idem	20 28 30	28 50 15	Oriental Navig. Mean value.
Idem	23 2 0	41 31 15	Connais, des Temps. Ephem. of Coimbra.	Idem		28 41 0	Horsburgh.
Idem	23 0 30	42 7 30	Captain Hurd.	Idem	20 30 0	28 9 44	Conn. des Temps.
Rio Janeiro, Castle	22 54 2	43 17 44	Conn. des Temps, 1817.	Saxembourg	30 45 0	19 30 0	Lindemann of Monnikedam, 1670.
Idem		42 47 35	Dorta, Mem. of the Academy of Lisbon. Astronomical observations.	Idem (?)		17 0 0	Galloway, American, 1804. ^g
St. Paul	23 33 14	46 9 0	Idem. idem.	Columbus, (perhaps Saxembourg,)	30 18 0	28 20 0	Long, pilot of the Columbus, 1809. ^h
Idem		46 13 30	Oliveyra Barbosa, ib.	MAGELLANIC COUNTRIES, OR TERRA DEL FUEGO, PATAGONIA, &c.			
Idem	23 33 10	46 39 10	Conn. des Temps.	Port Valdez	42 30 0	63 40 15	Malespina and other Spanish officers.
Santos, bar	24 2 30	46 2 15	Adm. Campbell, 1807.	— Santa Elena	44 32 0	65 29 30	Idem.
Iguape	24 42 0	47 6 0	Idem.	— Malespina	45 11 15	66 40 0	Idem.
Cananea	25 4 30	47 30 0	Idem.	Cape Blanco	47 16 0	65 59 15	Idem.
Parananga	35 31 30	47 51 0	Idem.	Port Desire	47 45 0	66 3 15	Idem.
Guaratuba	25 52 0	48 8 0	Idem.	— St. Julian	49 8 0	67 43 15	Idem.
Isle St. Catharine, fort Santa Cruz	27 22 20	47 51 25	La Peyrouse, Krusenstern, &c. Mean of the whole.	— Santa Cruz	50 17 30	68 31 15	Idem.
San Pedro, port	32 9 0	51 56 0	Orient. Navig. English and Spanish Observations compared.	Rio Gallegos	51 40 0	69 5 0	Idem.
Cape Santa Maria	34 37 30	54 1 0	Idem.	Cape Virgin	52 21 0	68 7 25	Idem.
Maldonado Bay, eastern point	34 57 30	54 47 0	Idem.	Cape San Espiritu	52 41 0	68 25 15	Idem.
Monte Video, Castle	34 54 48	56 10 0	Idem.	New Year's Isle	54 48 55	63 59 15	Idem.
Suenos Ayres	34 35 26	58 23 38	Requisite Tables.	Cape Success	55 1 0	65 17 15	Idem.
Idem	34 36 40	58 24 30	Conn. des Temps.	Cape Horn	55 58 30	67 21 15	Idem.
				Diego Ramirez Isles	56 27 30	68 39 15	Idem.
				FALKLAND, OR MALOUINE ISLES.			
				Port Egmont	51 24 0	59 52 15	Oriental Navigator.
				— Soledad	51 32 30	58 7 15	Idem.
				Isle of Georgia, N. Cape	54 4 45	38 15 0	Cook.
				Sandwich Land, or Southern Thule	59 34 0	27 45 0	Idem.

^a Cape Pillar.
^b This work appears to contain a number of typographical errors, which induced us not to cite many places on its authority.
^c 46° W. of Paris, consequently 43° 39' 45" W. of London.—P.
^d Want of room prohibits us from giving the various positions of these dangerous reefs.
^e The Ephemerides of Coimbra give the same result, without indicating from what authority.
^f It is not said in the Ephemerides whether this isle, Santa Maria, makes part of the group of Trinidad, as the latitude seems to show, or that of Martin Vaz, whose name is not indicated.
^g The existence of the isle of Saxembourg, or Saxenburg, has been doubted. The longitude indicated by Lindemann being very uncertain, a difference of two degrees is no objection to our recognising its identity. It is

only necessary to verify in detail the observation of Captain Galloway. Captain Flinders had in vain sought for it from 23 to 22 degrees, and even farther, but inclining his course to E. S. E. The same year the American Captain Galloway was assured he saw it under the old latitude, but much farther east.
^h The pilot Long, sent from the Cape to Rio de la Plata, observed an isle which he believed to be Saxembourg, but which is 11 deg. 40 min. more westerly than the isle seen by Galloway. This isle was four marine leagues long, and two and a half broad; it was flat, but on the east there was a peak about seventy feet high.
 The route of Flinders did not pass either the isle of Columbus nor that seen by Galloway; if the observation of the latter is not confirmed, the isle of Columbus would be the true Saxembourg, notwithstanding the enormous difference of longitude. But we think that the two isles exist simultaneously



London, Published by Samuel Walker.

Engraved by W. Chapman, N.Y.

BOOK XCIV.

EUROPE.—INTRODUCTION.

Its Physical Geography.—Seas, Lakes, Rivers, and Mountains.

EUROPE is inconsiderable in comparison of Asia, America, or the compact surface of Africa. A mere adjunct of the immense Asiatic continent, the whole peninsula could hardly contain a basin large enough for the Nile, the Kiang, or the Amazon.^a Its loftiest mountains cannot be compared in height or in extent to the Andes or Himalahs. If all its downs and uncultivated lands^b were added to the sandy plains of Africa, the augmentation might be wholly imperceptible. The European archipelagos are much inferior to the vast labyrinths in other regions of the earth.^c The productions of the animal, the vegetable, and mineral kingdoms, confined to the same continent, are few and insignificant. Its mines do not abound in gold; the diamond is not found among its minerals. There are not more than fifteen or twenty species of quadrupeds that belong exclusively to Europe, and these are not of the most useful kind. Some animals, as the horse, the ox, the sheep, and the dog, have been greatly improved by the care and industry of man, but the most valuable natural productions have been imported from other quarters of the world. The silkworm was brought from India, fine wool from Mauritania, the peach from Persia, the orange from China, and the potato from America. If we are rich, our wealth has been derived from the produce or spoils of other countries.

Such is the power of the human mind, that our barren, wild, and rugged region, which nature had only covered with forests or enriched with iron, has after a lapse of 4000 years, been completely changed by its inhabitants. Their civilization, it is true, has been more than once interrupted, but it has been found impracticable to extinguish it or set limits to its progress. We attempt in vain to separate the gifts of nature from the discoveries of art; climate is modified by cultivation; navigation has put within our reach the produce of every zone. Europe, in which the beaver built in security its habitation on the banks of solitary rivers, has become the seat of powerful empires; its fields yield rich harvests; its cities are adorned with palaces; our small peninsula extends its sway over the rest of the earth; it is the lawgiver of the world; its inhabitants are spread over every country; a whole continent has been peopled by its colonists. The barbarism of Africa, its deserts and burning sun, cannot much longer obstruct the progress of our travellers. European customs and institutions have

been transplanted to Oceanica; European armies have almost subdued the continent of Asia; British India and Asiatic Russia must ere long be conterminous; the immense but feeble empire of the Chinese may resist the arms, but not the influence of Europe. The ocean is the exclusive patrimony of Europeans or their colonists. The inhabitants of the most polished nations in other parts of the earth seldom venture beyond their coasts; our mariners sail fearlessly to the most distant seas.

We shall endeavour to describe this part of the earth differently from others less changed by the genius of their inhabitants; the progress of improvement is naturally associated with historical recollections; but it is necessary at the outset to make some observations on its physical geography.

The limits of Europe have been considered in a former part of this work;^d we have shown that the chain of the Ural mountains, the river of the same name, the Caspian Sea, and the lowest level of the isthmus between it and the sea of Azof, (a level indicated by the course of the Manytch, and the Kuma,) are the boundaries between Europe and Asia in the part in which they are contiguous. That frontier terminates at the Tanais or Don, which, for a short space, separates the two continents. The remaining limits are more easily determined; they are the sea of Azof, the Black Sea, the Bosphorus, the Propontis, and the Hellespont. The line is then taken across the Archipelago, so that Tenedos, Mitylene, Scio, Samos, Nicaria, Cos, and Rhodes, belong to Asia; Naxos, Stampalia, and Scarpanto, to Europe. The Mediterranean divides Africa and Europe; but it is not ascertained whether Malta, Gozo, Comino, Lampedosa, and Linosa, are African or European islands. The question, in as much as it is connected with the colonial administration of these settlements, has been agitated in the British parliament, and the geographical arguments on both sides appear equally plausible.

It has been seen that the Canaries, Madeira, and the Azores, are in a physical point of view appendages of Africa, being parts of a submarine continuation from the chain of Mount Atlas.

The new continent was unknown, when Iceland, a dependence of Greenland, was discovered, and geographers placed it among the islands in the neighbourhood of Europe. Historical and political connexions have long preserved this arrangement; but it is not difficult to prove that Europe ter-

^a M. Malte-Brun means by the basin of a river, all the countries over which its branches extend.

^b "Dunes et landes"—Dunes, sand-hills along the sea coast; landes, heaths and pine plains.—P.

^c "In Oceanica."

^d Introduction to Asia.

minates on the northwest, at the Feroe islands. The arctic regions, whether they consist of islands or peninsulas, being separated from our continent by the ocean, ought to be considered as forming part of North America.

Enclosed within the limits that have been described, the surface of Europe is at least equal to 500,000 square leagues, twenty-five of which are equivalent to an equatorial degree—the population of the same continent amounts to 200,000,000 souls. We have stated these conclusions in round numbers; but from our want of information concerning the extent of particular countries and the number of their inhabitants, our results cannot be considered very accurate. The annual increase in the European population is not, according to the lowest estimates, less than a million.

We subjoin those dimensions of Europe that appear to us most worthy of notice.

	<i>Leagues.</i>
Length from Cape St. Vincent to the Ural mountains, near Ekaterineburg	1215
From Brest to Astracan	860
Breadth from Cape Gata to Cape Ortegal, (Spanish Peninsula)	210
From Port Vendre to Bayonne, (Isthmus of the Pyrenees, first angustation,)	95
From Cape Colonna, in Calabria, to Cape Wrath, in Scotland,	615
From the Adriatic to the North Sea, (second angustation)	210
From Cape Matapan, in Greece, to Cape North, (the greatest breadth of Europe)	870
From the Black Sea to the Baltic, (third angustation)	268
From the Caspian to the White Sea, (fourth angustation)	485

Warsaw is the most central of the large European towns; but the basin of Bohemia is the physical centre, since it terminates on the north the great range of mountainous districts, which, as we shall afterwards see, form what may be called the *Upper countries* of Europe.^a

The numerous seas and gulfs that bathe our peninsula, distinguish it from other parts of the earth. Such great masses of water, placed between different countries, are not to be found in Asia, Africa, New Holland, or even in the greater part of America. They modify the temperature by rendering it humid and variable, promote commerce by facilitating the intercourse from one place to another, and are favourable to the freedom of nations, for, like mountainous chains, they form natural ramparts, that have unfortunately been too often neglected.

The western or Atlantic ocean washes Europe on the west and the north. It is needless to distinguish the sea to the north of the British isles, between Greenland and Norway, by the name of the northern ocean, which has been bestowed on it by some navigators. The name of the frozen sea is also inapplicable to any in Europe, even to the one between Cape North and Waigatz Strait, because it is seldom covered with ice to any great extent. The constant agitation of these open seas is the chief advantage that they possess over those which bathe the northern shores of Siberia and America.

The White Sea, a gulf that receives the fresh streams of three considerable rivers, is more liable to freeze than any of the rest. We allude in particular to the western part of it, in which rocks and islands are most thickly scattered. Its shores are in general low, and abound in barren rocks or turfy marshes; like the sea of Nova Zembla, it is subject to violent tempests, which setting out from the north-east,

impel against the northern extremities of Europe all the unknown seas to the north of Siberia.

We enter, after having doubled Cape Stat, or the western point of Norway, the gulf which has been called the north or the German sea. It extends from the Shetland islands to the strait at Calais^b and from the shores of England to the entrance of the Jutland channel. Its coasts formed by rocks in Norway and Scotland, become gradually very low; in many places they are covered with sand or full of ooze, and exposed to inundations or encroachments of the sea. The coast in the lower part of Scotland and in Yorkshire is protected by hills; but in the small gulf called the Wash, the sea flows frequently to the distance of a mile into the land; and the submarine forests on the shores of Lincolnshire are the undoubted monuments of its former ravages. The Nore, or the mouth of the Thames, is exposed to the same devastations, but in a less degree. All the coasts in the Low Countries bear the marks of them, and are only maintained in their present state by the inhabitants, who have erected dikes where the billows have not formed barriers^c against their advances. The shores of Holstein and Sleswick have been more than once inundated; the remains of the island of Nordstrand, which was overwhelmed in 1634, are proofs of these revolutions, which have also reduced Heligoland to its present narrow limits. But the land has been enlarged by the fertile alluvial deposits in that part of the sea which mariners call the *Gulf of Hamburg*.^d The coasts of Jutland, to the north of these countries, were perhaps in ancient times more exposed; but they are now guarded by a double rampart of banks and sand-hills. We have often seen dense mists rise from this sea, roll into fantastical shapes, extend along the shore, and fall at last in the form of saline particles: the growth of trees is thus checked, but the grass assumes a fresher verdure.

The English and the Dutch have given the name of the Sleeve to that part of the sea between Norway and Jutland. It is sometimes, but incorrectly, styled *Skager Rack*, a term which signifies merely the passage of Skagen;^e it might be better denominated the Norway or Jutland channel. It is very deep near its northern shores, and is contracted on the south by the vast and sandy promontory of Jutland, which is surrounded by gravel banks and rocks that are considered very dangerous even by the mariners of the country.

A second channel, the Katte-Gat, to the south of Cape Skagen, the extreme point of Jutland, is narrower than the former; it is crowded with islets and rocks, separates Jutland from Sweden, and is terminated by three straits, the Sound, and the Great and Little Belts, the numerous subdivisions of which encompass the Danish archipelago.

All these straits enter the Mediterranean of the north, or, as it is generally called, the Baltic; but it has been named the Eastern Sea by the Scandinavians and Germans. Its basin on the south is surrounded by sandy plains or by low mounds^f of chalk; the eastern coast of Sweden and the southern coast of Finland are encompassed by rocks and reefs; there are no hills of any considerable elevation near its shores, and its waters are shallow, not very salt, and frequently covered with ice. This sea receives the superfluous water of all the lakes in Finland, Ingria, and Livonia, the

^a "High Europe."

^b Straits of Dover.

^c "Dunes," sand-hills.

^d The Mouth of the Elbe.

^e The *Skager Rack* is properly a sand bank, stretching out from *Skagen*, or the *Skaw*, the north point of Jutland.—P.

^f "Falaises."

greater number^a of rivers in Poland and Eastern Germany, and the numerous streams in the north of Sweden, swollen by the snow or the torrents from the Dofrine mountains. So many tributary streams enter into no sea of the same size, on which account it resembles a lake, and the melting of the snow in summer determines the course of a current which runs into the North Sea by the Sound and the Belts. At other seasons the currents are regulated by the prevailing winds. The Gulf of Bothnia, which is like a separate lake, and the Gulf of Finland, which has some resemblance to a river, discharge their currents throughout almost the whole of the year into the great basin of the Baltic. Impelled in the direction of the current, the masses of ice from the interior of the Baltic, often unite and remain in the straits of Denmark.

We return by the north sea, and observe the straits of Dover, or the *Pas de Calais*, which communicates with the British channel, or the *Manche*. Shallow and confined, it is subject, from its communication with the Atlantic, to high and impetuous tides. The Bay of Biscay, or the Gulf of Gascony, need not be distinguished from the Atlantic, of which it forms a part. We may remark the contrast between it and the sea of Newfoundland, situated exactly under the same parallel; the polar ice, arrested by the currents in the latter, occasions in summer thick and dark fogs; but floating ice cannot enter the Bay of Biscay from the configuration of the coasts, and the humidity common to maritime countries is in a great measure checked by the continued motion of the atmosphere.

The Strait of Gibraltar leads into the Mediterranean, that series of inland seas equally interesting from their situation, their physical character, and historical celebrity. The first basin of the Mediterranean terminates at Cape Bon and the Strait of Messina. It is divided into two unequal parts by Corsica and Sardinia; but the Gulfs of Genoa and Lyons are the only places that are at present particularly designated. The depth of this basin is about a thousand or fifteen hundred fathoms near the shores where the sea washes the base of the Pyrenees, the Alps, and the Apennines. The eastern part may be denominated the Italian Sea; numerous volcanic islands, such as Lipari, Pontia,^b and many others, are scattered over it, and all of them are connected with the same subterraneous fires that rise from Etna and Vesuvius. The second basin is nearly twice as large, but very few islands or rocks have been observed in it. It extends from the coasts of Sicily and Tunis to the shores of Syria and Egypt, and forms on the north two separate basins, renowned in history, and well adapted to excite the attention of the physical geographer. The first is the Adriatic; its bed, if carefully examined, appears to be composed of marble and limestone, mixed with shells. The second is the Archipelago or White Sea of the Turks; its numerous and picturesque islands are all of volcanic origin.^c The gulf of the Great Syrtis on the south penetrates into Africa: its sandy coasts are lower than most others in the Mediterranean; its vast marshes^d in the midst of moving sands are of variable extent, and seem to confound the limits of the land and sea. But the most remarkable basin in the Mediterranean is, without doubt, that of

the Black Sea. Its entrance is formed by the Strait of the Dardanelles, or the Hellespont, the Propontis, or the sea of Marmora, and the Bosphorus, or the narrow channel of Constantinople. It is fed by the greatest rivers in central Europe, and receives by the strait of Caffa, or the Cimmerian Bosphorus, the turbid waters of the Palus-Maotis, which the moderns have so improperly denominated the sea of Azof. Such are at present the limits of those inland seas which separate Europe from Asia and Africa, and facilitate the communication between the ancient continents. It is not perhaps improbable that a former strait, gradually obstructed in the course of ages by the gravel and alluvial deposits from the torrents of Caucasus, connected, long after the last physical revolutions that happened on our globe, the sea of Azof, and consequently the Black Sea, with the Caspian.

The waters of the Mediterranean are chiefly supplied by the Nile, the Danube, the Dnieper, and other rivers that enter the Black Sea, and also by the Po, the Rhone, and the Ebro. Thus it receives the torrents formed by the melting of the snow in Abyssinia, Switzerland, Caucasus, and Mount Atlas. But although its feeders are so abundant, it has been generally believed that the quantity of water which enters the Mediterranean from the Atlantic is greater than that discharged from it into the same ocean. It has been alleged, in support of this supposition, that a constant and large current flows into it through the middle of the strait of Gibraltar, whilst only two feeble and lateral currents issue from it. But this apparent influx of the ocean is to be attributed to the pressure of a greater fluid mass on a smaller body of water; a pressure, which, from the force of its impulsion, must necessarily displace the upper strata in the lesser mass. If an anchor be cast in the strait, a lower current may be discovered, which carries to the ocean the superfluous water of the interior sea. The general motion of the Mediterranean is from east to west, but the reaction of its water against the coasts occasions several lateral and adverse currents.^e The straits, too, from their position, give rise to many very variable currents. The Faro of Messina, or the Charybdis of the ancients, and the Euripus between the continent and the island of Negropont, are the most remarkable. The tides are in most places hardly perceptible, but they may be observed in the Adriatic and in the gulf of the Syrtis.

We consider that part of the Caspian from the mouth of the Kuma to that of the Jaik, as situated in Europe; but as two thirds of its circumference belong to Asia, it has been described in our account of that continent. The greater number of its rivers enter it from the side of Europe. Its level is 168 feet^f lower than that of the ocean.

The seas which have been mentioned form the boundary of Europe, through an extent of 5500 leagues, whilst it is contiguous to the continent of Asia only on a line of 880 leagues. These seas are of immense advantage to the Europeans; they separate them on the north from the frozen regions of the Arctic Pole, and protect them on the south against the scorching heats of Africa; they increase the resources of commerce and navigation, and place, if we may so speak, the inhabitants of Europe in the neighbourhood of the other

^a "Half the number." The Duna, the Memel, the Pregel, and the Vistula, from Russia and Poland, and the Oder, from E. Germany.—P.

^b "L'île Ponce," Ponce.

^c "Couvrent un vaste foyer volcanique." This does not imply that they are all of volcanic formation, which is not true, (some of the islands being

granitic, others schistose or calcareous,) but that they conceal a vast volcanic focus, the centre of which is in the vicinity of Santorin and Milo.—P.

^d Lagoons.

^e "Remous," eddies.

^f 155 Fr. feet—165.3 Eng. feet.

continents. They abound in a variety of fish, which might afford sufficient nourishment for a fifth part of the European population. Their superficial extent may be estimated in the following manner:

MEDITERRANEAN.

	Square Leagues, Twenty-five equal to a Degree.
1. Western part to Cape Bon and the Strait of Messina,	42,680
2. The Adriatic,	8,180
3. The Archipelago and the Propontis,	10,120
4. Great Basin, or Eastern part,	71,000
Total Superfices of the Mediterranean,	131,980
The Black Sea and the Sea of Azof,	23,750
The Caspian Sea,	18,600
The White Sea,	5,000
The Baltic, (in its whole extent)	17,680
Gulf of Bothnia,	5,100
Gulf of Finland,	2,300
The Katte-Gat; the Sound, the two Belts, and all the arms of the sea between the several Danish islands, and between them and Holstein; and the channel between Denmark and Norway to Cape Lindesness, (the Sleeve) ^a	2,680
The German Ocean, limited by Cape Stat, in Norway, the Shetland islands, and Cape Lindesness,	32,000
The Irish Channel,	3,400
The British Channel,	3,700

The great number of fresh water lakes in several countries of Europe forms another characteristic of its physical geography; but these lakes, it is true, are not equal in extent to those in North America. The first of these regions has the sources of the Wolga to the south, the Baltic to the west, and the White Sea to the north-east. The following are the principal Lakes:—

	Square Leagues
Lake Ladoga,	830
— Onega,	430
— Bielo-Osero,	70
— Kubensk, Latscha, and Woja,	80
Five others between Kargapol and the White Sea,	75
Lakes Wig, Seg, Ando, and seven others to the north-west of the Onega,	100
Lake Peipus,	110
— Ilmen,	36
— Wirtz,	10
Five in the government of Pleskow,	10
Lake Saima, in Finland,	210
— Kuopio,	80
— Lexa,	30
— Kolkis,	70
— Tavastie,	20
— Ulea,	30
Twelve others,	60
Sum total of square leagues,	2,251

The surface of them all is therefore nearly equal to that of the gulf of Finland.

The lakes in Scandinavia are not so large, but more numerous, than those which have been now enumerated.^b The extent of Wener is about 280; that of Weter, 110; that of Mælar, 100; and that of all the Scandinavian lakes, from 700 to 800 square leagues. They are, with the exception of one or two, placed on the southern and eastern sides of the mountainous chain that traverses the peninsula. Those in northern Russia, on the contrary, are situated on the western declivities of that country. All of them, of course, flow into the Baltic, and are the sources which supply that inland sea.

Many small lakes are scattered over the countries to the south of the Baltic. More than four hundred have been counted in Mecklenburg, the Ucker Mark, and the interior of Pomerania and eastern Prussia. Some of them which have no outlet to the sea, are not unlike marshes; they lie in hollows, formed by the sinking of argillaceous and sandy land.

There are fewer lakes in the Alpine chain than in the Scandinavian mountains. We observe on the southern sides of the Alps, the lake Maggiore which contains about 20 square leagues, and those of Lugano, Como, Lecco, Iseo, and Garda; the surface of the last is equal to 24; their whole superficial extent, together with that of others less considerable, may amount to 80 square leagues. The lakes on the northern sides of the Alps are more numerous; that of the Four Cantons occupies a space of about 13 square leagues; among others, we may mention those of Thun, Brientz, Neufchatel, which is not less than 15, those of Biel, Zug, Sursee, Zurich, Wallenstadt, Greiffensee, and Constance, of which the superficies is at least 38. There are five or six in Upper Suabia; twelve in Bavaria, of which the most remarkable are the lakes of Ammer and Chiem; lastly, we have to notice those in Austria, or the lakes of Atter, Abend, Hallstadt and others to the east of Salzburg. The surface of all these lakes may be estimated at 180 square leagues. The lakes of Geneva and Annecy, and some others, are situated on the western side of the Alps; the former covers an area of 44 square leagues; the rest are too insignificant to merit attention.

There are four or five small lakes in the peninsula of Italy, near the middle of the chain of the Appennines, and all of them are of a circular form and encompassed by steep rocks. The Italian geologists consider them the monuments of a volcanic revolution which must have taken place in the centre of the peninsula. The number of lakes in the western parts of Europe is inconsiderable, particularly in Portugal, Spain, France, and England. The contrast in Ireland is striking: four or five larger lakes, one of which is not less than that of Zurich, and ten or twelve smaller ones, exclusively of the fens or bogs which shall afterwards be more fully described, occupy a hundredth part of the territory in that island.^c

The European rivers, whose comparative courses are estimated in a table added to this book, present certain general results which are worthy of attention.

If all the rivers in Europe be taken as	1.000
Those which flow into the Black Sea are	0.273
Into the Mediterranean, including the Archipelago and the Adriatic	0.144
Into the Atlantic Ocean	0.131
Into the North Sea	0.110
Into the Baltic	0.129
Into the Northern Ocean	0.048
Into the Caspian	0.165

If we consider them apart, the following conclusions may be derived concerning the six largest rivers in Europe.

The water discharged from the Wolga	0.144
From the Danube	0.124
From the Dnieper	0.061
From the Don	0.052
From the Rhine	0.030
From the Dwina	0.021

^a The whole extent of sea between the Baltic and the German Ocean is called the *Codan* in the original.—P.

^b "La Scandinavie est remplie des lacs, moins cependant que la region precedente"—"Scandinavia is full of lakes, but less so than the preceding

region." The assertion in the translation is not that of the original, nor is it true.—P.

^c The mountains of Cumberland and Westmoreland, and the Highlands of Scotland, also abound in lakes.—P.

These results depend on the course of each river and that of its feeders; it is necessary, however, to take into consideration the lakes that flow into them; but without reference to that circumstance, our calculation as to the six largest rivers in Europe may be considered sufficiently accurate. The other rivers next to those which have been enumerated, are the Po, the Rhone, the Ebro, the Guadalquivir, the Tagus, the Loire, the Elbe, and the Vistula; but all of them united are hardly equal to the Wolga. The Kama, a mere feeder of the Wolga, and one that is little known, is not less than the Rhine, a river celebrated in history. The Seine, with all its tributary streams, does not make up 0.009 of all the European rivers.

We pass from our imperfect account of the rivers to that of the European mountains. The Ural range, which is common to us with Asia, has been described in the preceding volume. It does not form a continuous line on the side of Europe, but resembles a number of hills rising insensibly from the centre of Russia in an eastern and northeastern direction; although their summits are broken or ill-defined, they are placed on an elevated base, and their absolute level is not less than that of the mountains in Silesia and Saxony; their greatest height is equal to 7000 feet. The hills or rocks that traverse Russia are not visibly connected with the Ural or any European range.^a

The table-land of Waldai, from which the Wolga descends to the Caspian, the Dwina to the Baltic, and the Dnieper to the Black Sea, is a lofty plain crowned with hills from twelve to thirteen hundred feet above the level of the sea. It becomes much lower on the side of Poland; the sources of the Beresina, the Niemen, and the Pripetz, are situated on a plain of which the inclination is imperceptible, and the height not more than two hundred feet above the sea at the mouth of these rivers. The elevation of the granite rocks which are connected with the Carpathian mountains, and divide the course of the Dnieper, is also very low; they cannot be distinguished near the shores of the sea of Azof.

The Dofrines, or the Scandinavian Alps, are better marked than the Ural chain, but as completely isolated from the other mountains in Europe. The whole range extends from Cape Lindesness, or the southern point of Norway, to Cape North, in the island of Mageroe. The central mountains, or the proper Dofrines, are the only part which may be considered as forming a true chain. Lapland and the southwest of Norway are two plateaus crowned by separate chains. Steep rocks, frightful precipices, high cataracts, and glaciers, recall to our recollection the lofty mountains on our globe; the same range abounds in picturesque beauties; but its most elevated summits are not more than seven or eight thousand feet above the level of the sea. The *Seves*,^b a lower branch, which bounds Norway and Sweden, enters into the latter kingdom, and terminates in a number of hills. Other low heights traverse Lapland, and are connected with the rocky hills of Finland, which are lost round the numerous lakes in that country.

The Grampian or Caledonian mountains form, like those in Wales, a separate group of several small and parallel chains, whose greatest elevation does not amount to 5000

^a "When viewed on the side of Europe, it has less the appearance of a chain than of a plateau rising insensibly from the centre of Russia in an east and northeast direction; and although the ridge which crowns it is but slightly marked, yet, being placed on an elevated base, it appears to equal in absolute elevation the mountains of Silesia and Saxony. Its greatest al-

feet. These chains are without doubt connected by a submarine continuation with the rocks in the Orkney, Shetland, and perhaps the Feroe islands; their general direction is from southwest to northeast.

The Cambrian mountains in the principality of Wales, and those in the northwest of England, are lower than the Caledonian range.

A plain extends, in the north and the east of Europe, from Ireland to the Caspian; two distinct chains, those of Caledonia and Scandinavia, rise above it. The south and the centre of the same continent present a very different character. All the mountains, from the pillars of Hercules to the Bosphorus, and from Etna to the Blocksberg, are so many parts of the same series. We shall, however, both on account of several physical considerations, and in conformity to the common method, divide them into four ranges.

That of the Alps is the most remarkable and most central of them all. Mount Blanc, the highest mountain in Europe, is situated in the principal Alpine chain. The length of the chain from Mount Ventoux, in Dauphiny, to Mount Kahlenberg, in Austria, is about 600 miles. The height of the summits is from ten thousand to fifteen thousand feet; that of the passages across the principal chains is generally from five to six thousand. But the elevation of the plains on the north of the Alps, in Switzerland and Bavaria, is about a thousand, and in some places two thousand feet, while those in Lombardy and Hungary, which bound the Alpine range on the south and the east, are not much higher than the level of the sea. Perpetual ice commences at an elevation between seven and eight thousand feet, and forms in the centre of the Alps frozen seas like those at the poles. The ice disappears at a height above 10,800 feet; the atmospheric vapour is congealed as it descends, and covers the ground with eternal snow. The great depth of the Alpine lakes is characteristic of these mountains; one of them, the lake of Achen, is not less than 1800 feet in depth. The phenomena which the structure of the Alps exhibits, the imposing beauties which their different aspects present, their influence on climate, and that which they have had on the movements of nations, cannot at present occupy our attention; it is only our object to determine their general position.

The Appennines on the south and the chains connected with them, which may be called the *Sub-Appennines*, form the southern branch of the Alpine system, of which the height is from four to nine thousand feet; but some of the mountains in the neighbouring islands are higher than 10,000. Those in Sicily are evidently connected with the Appennines, and the elevation of the highest, or of Etna, is partly to be attributed to volcanic eruptions. But it is as yet uncertain whether or not there are mountains of an equal height in Sardinia; the connexion between the Corsican and Sardinian chains is also imperfectly known.

An eastern branch of the Alps,^c passes between the feeders of the Danube and the Adriatic Sea, and unites the chain with that of Mount Hæmus.—These mountains are very narrow in many parts of Carniola and Dalmatia; the height of their summits is from seven to ten thousand feet.

The northern branch of the Alps includes the chain of

titude is not more than 7000 feet. None of the hills or rocks that traverse Russia distinctly connect the Uralian mountains with any other European range."—P.

^b Seveberg.

^c "Dinarian Alps."

Jura from Geneva to Bale, and that of Vogeses,^a or Vosges, from Langres to the neighbourhood of Mayence. The east of these is connected with the mountains in central Germany, and consequently with the Carpathian range, which also joins the Alps in Austria.

The chain of Cevennes and its dependencies, the volcanic mountains of Auvergne, are considered a branch of the Alps, although they are united to the Pyrenees by the Black mountain, and separated from the Alps by the narrow valley of the Rhone.

The peninsula of the Pyrenees is formed by a central plateau of about 1000 or 1500 feet in height, and on it are placed groups of mountains and different chains distinctly marked. The Pyrenees in the north, and the Alpujarras, or the *Sierra Nevada*, in the south, may be compared to the two outer bulwarks of this plateau. The elevation of the first, or the Pyrenees, is about 9000 or 10,000 feet; of the second, from 10,000 to 11,000, near the centre. But that height does not extend to a great distance, as in the Alps; nor are these chains nearly equal to them in breadth; on that account the phenomena of ice and perpetual snow are not so remarkable. The mountains in Galicia and in Asturias are imperfectly known; the intermediate chains, or the Guadarama, between the two Castiles, the Sierra Morena to the north of Andalusia, and the Estrelha in Portugal, are not higher than 5000 or 6000 feet. We shall examine in our description of the particular countries in which they are situated, their mutual positions and supposed relations; for some of them, it may be remarked, have not been determined. It is sufficient to observe at present that we are not entitled to conclude that there is any connexion between the Pyrenees and Mount Atlas, or even between the Azores and the Canaries.^b

Mount Hæmus and its branches are situated at the other extremity of Europe, in a peninsula not so well defined as that of Spain. In the present defective state of our knowledge, the Despoti-Dag, or the ancient Scomius, north of Macedonia, may be considered the centre from which four chains extend. The first is that of the Albano-Dalmatian mountains, which are attached to the Alps; the second, or the range of Hæmus, stretches out in an eastern direction until it is abruptly lost in the waters of the Euxine; the third, or the interior chain of Rhodope, separates Thrace from the Ægean sea; the fourth, which is distinguished by the poetic names of Olympus, Pindus, Æta, Parnassus, Helicon, and Lycæus, crosses Greece, and passes into the islands of the Archipelago. As the Hellenic mountains have never been accurately measured, it is impossible to determine whether or not they are higher than the Appennines; we are, however, inclined to believe that they are, from the long continuance of snow on them.

The Carpathian and Hercynian mountains are separated from the Alps and Hæmus by the basin of the Danube, and in two places, the first in Austria, the second between Servia and Wallachia, the branches of these mountains confine the bed of the river, and form several narrow passes.—The whole range may be therefore considered the forepart of the Alps; the highest summits that have been measured are not more than 9000 feet, but the general elevation is from four to five thousand, or, in other words, the same as the passages across the Alpine chain. Its breadth is however

considerable, and it encloses extensive plateaus and elevated basins, such as those of Bohemia and Transylvania. No other mountains in Europe are so rich in gold, silver, copper, and salt. As their height is not comparatively great, no glaciers have been observed on them; they are not very steep, and there are none of those cavities which serve as reservoirs for the deep lakes in the Alps and the Dofrines. The Transylvanian mountains form one of the principal parts of the range; they are not at present distinguished by any particular name, but in ancient times they were called the Bastarnian Alps; the other principal parts are the Carpathian or *Krapack* mountains between Hungary and Poland, the Sudetes, or the hills of the giants,^c between Silesia and Bohemia, the metalliferous mountains, or the *Erzgebirge*, between the last country and Saxony, and lastly, the different small chains in central Germany, formerly included in the Hercynian forest.

It is not improbable that it may be one day shown that the Carpathian mountains and the chain of Hæmus are adjuncts of the great Alpine range, while the Pyrenees, on the other hand, may be considered as a separate range, distinguished by the lofty central plain which resembles that in Asia Minor; but the correctness of this hypothesis can only be ascertained by a greater number of observations; a change of classification at present might be tiresome, at all events it could not be attended with any advantage.

It is not easy to discover in what the plains^d of Europe differ from many in other parts of the earth, unless it be that they are in general smaller than those in Asia, Africa, and America. The most extensive are the plains of Walachia and Bulgaria, or those on the lower Danube, and the Hungarian plain on the same river, which, as it must have been at one time the basin of a salt water lake, is perhaps the most remarkable in the world. The valley of the Po occupies the third place as to size; but its rich cultivation has been in few countries equalled, and in none surpassed. The valley of the Rhine between Bale and Mayence presents a basin of an elliptical shape, and the circular basin of Bohemia may be compared to the famous valley of Cashmere. The Valais, or the basin of the Upper Rhone, is the largest of any in what is strictly termed the Alpine chain; but the valley of Carinthia, although less celebrated in romance, does not yield to it in picturesque scenery. We might anticipate our particular account of different countries, were we to enumerate other plains less extensive; but it may be remarked that the valleys in Norway and Scotland are generally circumscribed by long and narrow outlines, and near the centre of many of them are situated lakes of the same form.

We are led to conclude from this summary of European orography, that our quarter of the world is naturally divided into two parts, the *upper* and the *lower*; a division no less important in physical geography than in its relation to the history of man. A vast plain, from London and Paris to Moscow and Astrakan, lies open to the invasions of Asiatic nations: it is subject to the alternate influences of Siberian and Oceanic atmospheres; its lowness renders it warmer and more habitable than the table-land of Tartary, which is placed under the same parallel. A continuation of elevated land extends from Lisbon to Constantinople, and the direction of its heights and declivities is very differ-

^a Mons Vogesus.

^b "We shall only observe, that the pretended connexion of the Pyrenees

with Mount Atlas, or even with the Azores and Canaries, is merely an hypothesis foreign to the science of geography."—P.

^c *Riesengebirge*, Giants' Mountains.

^d "Valleys."

ent in different places ; some parts are exposed to the cold winds of the north, others are visited by the genial and refreshing breezes of the south. Nations are every where separated by natural barriers, defiles must be crossed, and gulfs must be passed. It is there, above all, that the peculiar character of Europe is exhibited. Were it not for the roads on which so much labour has been employed, the communication must have been very difficult between the countries on the north and south of the Alps, in every season of the year. But, on the other hand, no natural obstacles impede, during the winter, the heavy wagon or the light sledge in the plains of lower Europe ; on that account, perhaps, the inhabitants of the north are more addicted to travelling than the people in the south. Both are favoured by nature. But all the productions of our continent are united in upper Europe ; the northern declivities and the elevated points on the central chains bear the plants that are found in the highest latitudes of lower Europe ; that portion of the same continent does not yield such variety of produce, but its plains are more extensive, and its culture is more uniform. We shall reserve, however, such discussions for the next book, and close our observations with the following remark. If the ocean rose fifteen or sixteen hundred feet, northern Europe would be submerged ; the Euxine and the Caspian would join the Baltic and the north sea ; southern Europe, on the contrary, being higher than the level of the waters, might form one or two large and lofty islands. The contrast, however, is not complete ; for the uniformity of the two European divisions is interrupted by the two great valleys of Hungary and Lombardy, and the two mountainous countries of Norway and Scotland.

Some of the facts connected with the physical geography of Europe are marked in the subjoined tables.

Table of the different Rivers in Europe, distributed by Basins.

	DECLIVITIES.	RIVERS	Course.—Miles. ^a
I. EUROPEAN PART OF THE FROZEN OCEAN.	I. North-west declivity of the Ural mountains.	Petzora,	450
	II. Northern declivity of the Russian plateau. Basin of the White Sea.	Metzen,	300
		Dwina,	480
		Onega,	210
	III. North-east declivity of Scandinavia.	Tana,	150
	I. Eastern inclination of Scandinavia and western of Finland. Basin of the Gulf of Bothnia.	Torneo,	240
		Liusna,	258
		Dala,	294
		Ten or twelve others,	150—180
		II. Southern inclination of Finland.—Western of Ingria.—Basin of the Gulf of Finland.	Neva, the Bosphorus of Ladoga.
	Kymene, outlet of the Finland lakes.		
II. BALTIC.	III. Western declivity of the central plateau of Russia.	Dwina or Duna,	420
		Niemen,	450
		Vistula,	570
	IV. Northern declivity of the Sudetes and Carpathian mountains.	Bug,	300
		Narewa,	150
	Oder,	450	
	Wartha,	330	
	Netze,	150	
	V. Southern coasts of Sweden.	Outlets of different lakes.	

^a In the original it is given in leagues. The miles, in the translation, are obtained by multiplying by 3.—P.

Table continued.

	DECLIVITIES.	RIVERS.	Course.—Miles.
III. NORTH SEA.	I. Southern inclination of Norway, western of Sweden, northeast of Denmark, &c. ^b	Glomma,	270
		Gotha, including the Clara and lake Wener,	375
	II. Northern declivity of the Sudetes and the Hercynian mountains, or of northern Germany.	Elbe,	570
		Saale,	180
		Spree and Havel,	225
		Weser,	300
		Aller,	135
		Ems,	210
		Rhine,	675
		Reuss,	144
	Aar,	144	
	Neckar,	150	
	Mein, or Maine,	330	
	Moselle,	348	
	Lippe,	120	
	Meuse,	360	
	Scheldt,	204	
	Thames,	180	
	Trent or Humber,	180	
	Tay,	90	
	V. Western of Norway.	Torrents.	
	I. Western of Great Britain.	Severn,	180
	II. Western of Ireland.	Shannon,	210
	III. The British Channel; north-west declivity of France.	Somme,	90
		Seine,	330
		Marne,	210
		Vilaine,	90
		Loire,	540
		Allier,	210
		Cher,	180
		Vienne,	180
		Charente,	150
		Garonne,	345
		Dordogne,	210
		Lot,	180
		Tarn,	180
		Adour,	180
	V. Northern of Spain.	Small rivers.	
		Minho,	165
		Douro,	375
		Esla,	135
	VI. Western of Spain.	Tagus,	480
		Guadiana,	420
		Guadalquivir,	300
		Xenel,	150
		Segura,	210
		Xucar,	210
	I. Eastern of Spain.	Ebro,	375
		Segra,	210
		Rhone,	390
	V. MEDITERRANEAN.—FIRST BASIN, EUROPEAN PART.	Saone,	210
		Doubs,	195
		Isere,	135
		Durance,	120
		Arno,	105
		Tiber,	180
		Volturno,	90
		Ofanto,	90
		Po,	375
		Tanaro,	90
		Tesino, and lake Maggiore,	120
	II. South-east declivity of the Alps.	Adda,	150
		Oglio,	108
		Adige,	225
		Narenta,	120
	III. Southern declivity of Dalmatia.	Boyana and Moraca,	120
	IV. Western inclination of Hæmus.	Northern Drino,	180
		Voiussa,	120

^b "Basin of the Codan."

Table continued.

	DECLIVITIES.	RIVERS.	Course.—Miles.	
VII. SECOND BASIN OF THE MEDITERRANEAN, EUROPEAN PART.	I. Southern declivity of Sicily, Calabria, and the Morea.	<i>Aspropotamo</i> ,	120	
		<i>Alphæus, Eurotas, &c.</i> less than	90	
		<i>Vardar or Arius</i> ,	225	
		<i>Maritza or Hebrus</i> ,	288	
		<i>Strymon</i> ,	120	
	II. Archipelago; Eastern and Southern declivities of Greece, Macedonia, &c.	<i>Peneus</i> ,	90	
		<i>Danube</i> ,	1710	
		<i>Lech</i> ,	120	
		<i>Iscr</i> ,	180	
		<i>Inn</i> ,	240	
VIII. BLACK SEA, EUROPEAN PART.	I. Eastern declivity of the Alps, southern of the Sudetes and Carpathian mountains.	<i>Morawa</i> , in Moravia,	150	
		<i>Waag</i> ,	165	
		<i>Drave</i> ,	360	
		<i>Murr</i> ,	225	
		<i>Save</i> ,	330	
	II. Southern declivity of Russia and central Poland.	<i>Morawa</i> , in Servia,	210	
		<i>Theisse</i> ,	495	
		<i>Marosch</i> ,	330	
		<i>Aluta</i> ,	300	
		<i>Sereth</i> ,	300	
	IX. BASIN OF THE CASPIAN SEA, EUROPEAN PART.	III. Basin of the Sea of Azof; southern inclination of Russia.	<i>Pruth</i> ,	390
			<i>Dniester</i> ,	480
			<i>Dnieper</i> ,	1050
			<i>Sen</i> ,	510
			<i>Desna</i> ,	210
I. Southern declivity of central Russia, southern or eastern of the Ural mountains.		<i>Pripetz</i> ,	300	
		<i>Bog</i> ,	420	
		<i>Don</i> ,	1080	
		<i>Tropez</i> ,	300	
		<i>Medwidiza</i> ,	300	
	II. Basin of the Ural mountains.	<i>Donetz</i> ,	420	
		<i>Wolga</i> ,	2040	
		<i>Mologa</i> ,	270	
		<i>Occa</i> ,	630	
		<i>Kliasma</i> ,	270	
	Ural or Jaik, the boundary of Europe on the east,	<i>Wetluga</i> ,	390	
		<i>Suba</i> ,	330	
		<i>Kama</i> ,	780	
		<i>Wiatka</i> ,	450	
		<i>Bielaiia</i> ,	360	
	<i>Samara</i> ,	300		
		1020		

SUPERFICIAL EXTENT OF DIFFERENT BASINS.

	German Square Miles.
Basin of the Wolga,	30,154
— Danube,	14,423
— Don,	6,088
— Dwina,	5,890
— Rhine,	3,598
— Vistula,	3,578
— Elbe,	2,800
— Loire,	2,378
— Oder,	2,072
— Douro,	1,638
— Garonne,	1,443
— Po,	1,410
— Tagus,	1,357
— Seine,	1,236

This last table is taken from Lichtenstein's cosmography and general statistics, vol. i. p. 328. The author contrasts the superficial extent of these basins with that of others in different parts of the world.

	German Square Miles.
Basin of the Oby,	63,776
— Saghalien,	53,559
— St. Lawrence,	62,330
— Amazon,	88,305
— La Plata,	71,665

* "Monts Sevens." "A branch extends to the southeast from Dovre-

HEIGHT OF THE PRINCIPAL MOUNTAINS IN EUROPE.

URAL MOUNTAINS.			Fect.	
Pawdinskoi Kamen,		6,715	} above the Caspian.	
Idem,		6,632		} above the Ocean.
Tanagai,		9,061	doubtful.	
Komchefscoi,		8,133	idem.	
Table Land of Waldai,		1,322		
SCANDINAVIAN MOUNTAINS.				
	Guta-field,	5,220	} Hagelstam's physical map, Schow, &c.	
	Glacier of Hallingdal,	6,470		
	Gousta,	5,413	} perpetual ice at 3,200 feet.	
	Følgefond,	7,238		
Thulian chain.	Fille-field,	6,425	} Glacier.	
Western Norway.	Suletind,	5,884		
	Sogne-field,	7,862		
	Lang-field,	7,216		
	Snee-Bræen (Snow Dome),	6,396	} Eastern promontories of the base.	
	Elevated base of the chain,	3,198		
	Laurdal,	3,524	} Eastern promontories of the base.	
	Jonsknude,	2,864		
	Passage of Lessoe,	2,558	} According to M. Esmarck 7,523 (7,620 Fr.)	
	Dofre, Glacier,	7,427		
	Passage of Jerken,	5,295	} Promontory of a secondary chain. Omissions.	
	Snee Hættan, or Snow Cap,	8,887		
Dofrine chain.	Kæl field,	6,837	} Central Norway. Northwest of Sweden.	
	Tron field,	6,441		
	Sylt field,	7,071		
	Areskuta, (Jemptland),	5,163	} Promontory of a secondary chain. Omissions.	
	Sulitelma, (Lapland)	6,760		
	Saulo,	4,081	} supposed to be higher.	
	Tulpayegna,	4,301		
	Linayegna,	6,064	} supposed to be higher.	
	Swucku,	5,135		
The Severnoi,* between Norway and Sweden.	Transtrand,	3,513	} supposed to be higher.	
	Mount Seve,	1,066		
	The desert of Svarteborg,	1,918	} supposed to be higher.	
	Island of Vaag, Glacier,	4,264		
	— Hind, (idem)	4,264	} supposed to be higher.	
	Joke-field, (Peninsula)	5,370		
Maritime chain of Lapland.	Storvands-field,	3,837	} supposed to be higher.	
	Seyland, (Island of) Glacier,	4,155		
	Voriedader,	3,943	} supposed to be higher.	
	Rastekaisa,	3,837		
	Cape North,	1,670	} supposed to be higher.	
	Lake of Fæmund, chain of the Dofrines,	2,406		
	— Mios, middle of Norway,	514	} supposed to be higher.	
	— Silian, middle of Dalecarlia,	689		
	— Stor, central plain of Jemptland,	1,071	} supposed to be higher.	
	— Torneo, (Lapland)	1,491		
	Kinekulle, (West Gothland),	982	} supposed to be higher.	
	Lake Venner,	156		
Plateau of Southern Sweden.	Lake Vetter,	312	} supposed to be higher.	
	Taberg, (Smoland)	1,100		
	Ramsquilla, (idem)	1,145	} supposed to be higher.	
	Lakes of Wexiæ, &c.	426, to 533		
	Island of Bornholm,	417	Oersted.	
BRITISH MOUNTAINS.				
Ben-Nevis, (Scotland)		4,380	Jameson.	
Cairngorm,		4,050		
Benwyves,		3,720		
Schihallien,		3,281		
Bonmore,		3,903		

field, forming the common boundary between Norway and Sweden, and is sometimes called Seveberg.—Ed. Encyc.—P.

Benlawers,	4,015
Benvoirlich,	3,300
Benledi,	3,009
Benlomid,	3,262
Blacklurg,	2,890
Cheviot,	2,682
Cross-fell, (Cumberland)	3,390
Helvellyn,	3,324
Skiddaw,	3,270
Snowdon, (Wales)	3,568
Cader Idris,	3,550
Macgillicuddy's Reeks, (Ireland)	3,404
Sliebh-Donard,	3,150
Croagh Patrick,	2,666
Mangerton,	2,505
Goatfield, (Isle of Arran)	2,945
Sna Fell, (Isle of Man)	1,740
Summit of Hoy Island, (Orkneys)	1,700
Mount Skaling, (Feroe Islands)	2,200
St. Kilda, (Island of)	1,800
Ronaberg, (Shetland Islands)	3,944 doubtful.

CEVENNES.

Mont Mezin, source of the Loire,	5,820
Marguerite,	4,994
Lozere,	4,887 Delambre.
Puy de Montoncelle,	4,266
Pila, (near Lyons)	3,953
La Croix Touttée,	3,245
Mountains of Charolais,	2,301
Mont Salvy, (near Rhodex)	2,712
The town of Rhodex,	2,194
— Alby,	799
Plomb de Cantal,	6,093
Puy Mary,	6,113
Mont Courlande,	5,410
Puy du Dôme,	4,842
Puy Mareilh,	5,160
Puy de Saucy, (Mt. d'Or)	6,330
Puy Ferrand,	6,112
Puy Pailhet,	5,748
The town of Clermont,	1,342
— Limoges,	925
— Bourges,	515
— Orleans,	382
— Auxerre,	483

PYRENEES.

Maladetta,	11,384	{ Vidal and
Idem,	10,681	{ Reboul.
Mont Posatz,	10,952	{ Vidal and
Mont Perdu,	11,257	{ Reboul.
Vignemale,	11,002	{ Vidal and
Cylindre du Marboré,	11,025	{ Reboul.
Neouvicille,	10,200	
Breche de Roland,	9,658	
Pic du midi de Bagneres	9,594	
Idem de Pace,	8,997	
Pic du Montaigne,	7,794	Ramond.
Mont Moncal,	10,360	
Mont St. Barthelemi,	7,584	
Canigou,	9,213	Cassini.
Idem,	9,127	Mechain.
Port de Pinede,	8,255	Ramond.
— Gavarnie,	7,648	Idem.
— Cavarere,	7,358	Idem.
— du Tourmalet,	6,135	Idem.
Col de Navoure,	620	{ Separation of the Cevennes and the Pyrenees.

SPAIN AND PORTUGAL.

Bætic chain, or Anti-Pyrenees.	El Mulhacen, (Sierra Nevada)	11,812	{ Clemente
	Pichaco de Voletta,	11,217	{ Rojas.
	The Alpujarras,	9,168	Thalacker.
	Sierra de Gador, (Alpujarras)	7,870	Pluer.
	Cerrajon de la Muerta,	5,358	Rojas.
	Sierra de Lujar, (south of Granada)	6,922	Idem.
Granada, town of	2,465	Betencourt.	

* Snowfield.

Iberian chain.	Sierra de Molina,	3,837	Antillon.
	Muela de Arias,	4,329	
	Peak of Pennagolosa,	2,404	
	Collado de Plata,	4,376	
Sierra Morena.	Sierra d'Espadan,	3,509	
	Silla Torellos, (Majorca)	5,113	
	Almuradich,	2,437	
	Puerto de Rey,	2,274	
	Rapids of the Guadiana,	159	
	Foya, (Algarve)	4,082	Franzini.
	Cape St. Vincent,	308	
	San Ildefonso,	6,679	
	Penalara, summit of the Guadarama,	8,509	
	Madrid, town of,	2,630	Antillon.
Chain of the Tagus.	Estrelha, (Beira)	6,883	Franzini.
	Idem,	7,647	Balbi.
Galician chain.	Gaviara, (Minho)	7,886	
	Peñas de Europa, (Asturias)	8,528 to 9,594	conjectural.
	Passage of Lunada,	4,711	J Penalver.
	Estella, (Catalonia)	5,805	Delambre.
	Puig-se-Calm-Rodos, (idem)	4,944	
	Montserrat, (idem)	4,050	
	Morello, (idem)	1,930	
Montjouy, (idem)	671		
Rock of Gibraltar,	1,490		

APPENNINES.

Colmo di Lecco, (Bochetta)	3,390	Schow.
Monte Simone,	6,978	{ Almanach de Gènes.
San Pelegrino,	5,168	
Alpe de Doccia,	4,413	
Monte Barigazo,	3,858	
Bosco Lemgo,	4,451	
Sasso Simone,	4,047	
Monte Amiata,	5,792	
Sienna, (town of)	1,132	
Radicofani,	3,057	{ Anti-Appennine chain of Tuscany.
Viterbo, (town of)	1,339	
M. Soracte,	2,269	
M. Cappanna, (Island of Elba)	3,837	
M. Velino,	8,388	Shuckburgh.
M. Sybilla,	7,502	
Sasso d'Italia,	9,523	Schow.
M. Amaro, or La Majella,	9,134	
M. Catria,	5,550	
M. Pennino,	5,167	
Terminillo,	7,035	
M. Cavo, (near Frosinone)	4,188	{ In the Sub-Appennine chain of Latium.
M. Gennaro,	4,184	
Roca di Papa,	2,376	
Vesuvius,	3,735	{ Guy-Lussac, 1805.
Epomeo, (island of Ischia)	2,518	
Anacapri,	1,955	
M. Bolgario, (near Salemi)	3,724	
M. Calvo, (summit of M. Gargano)	5,116	
Sila, (Calabria)	4,940	doubtful.
Etna, (Sicily)	10,954	
Pizzo di Case, (idem)	6,500	Schow.
Coro di Mofera, (idem)	6,248	
Portella dell' Arena, (idem)	5,148	
Piano di Troglia, (idem)	4,956	
M. Cuccio, (near Palermo)	3,218	
M. Giuliano, (Eryx)	2,194	
M. St. Michael,	2,693	
Montagnuolo, (island of Felicudi)	3,050	
Monte Rotondo, (Corsica)	8,810	Perney.
Monte d'Oro, (idem)	8,746	

ALPS.

MARITIME CHAIN BETWEEN PIEDMONT AND FRANCE.

Caoume, (near Toulon)	2,637	
St. Pilon,	3,230	
Mont de Lure,	5,754	
Mont Ventoux,	7,235	Delcos.
Charence, (near Gap,)	5,116	
Col de Tende,	5,818	
Parpaillon, (near Barcelonette)	8,954	{ Hericartie
Siolane,	9,696	{ Thury.

Col, between Maurin and Laclapiere,	8,999
Coal-mines, (near St. Oulp)	6,907
Le Chailol le vieux,	11,098
Loucir,	14,436 doubtful.
Loupilon,	14,056 idem.
Joselmo,	13,860
Pelou de Vallonse,	14,128 Farmond.
Mont Viso de Ristol,	13,138 Morazzo.
Mont Viso, (another summit)	13,828 Von Zach.
Source of the Po,	6,466
Mont Genevre,	11,788
Col de Mont Genevre,	6,223
Mont Cenis, (Rock St. Michael)	11,460
Passage across Mont Cenis,	6,773
Lake on Mont Cenis,	6,280

CHAIN IN DAUPHINY LIMITED BY THE RHONE.

Pic de Pelladone,	10,232
Chevalier,	8,742
Richardieres,	7,717
Chamechaude,	6,860
Gardros,	4,797

CHAIN OF MONT BLANC. (PENNINE ALPS.)

Mont Iseran,	13,278	Welden.
— Valaisan,	10,929	
Passage of the Little St. Bernard,	7,194	
Summit,	9,594	Saussure.
Col de la Seigne,	8,046	
Col de Bonhomme,	8,027	
Cramont,	8,944	
Col de Geant,	11,275	
Mont Blanc,	15,766	{ Saussure, Tralles, and Pictet.
L'Allée Blanche, (valley)	14,775	
Priory of Chamonay,	3,463	
Le Buet,	11,193	
Aiguille de l'Argentiere,	12,804	
Great St. Bernard,	10,769	
Passage across the Great St. Bernard,	7,966	{ Zumstein and Wel- den.
Mont Rosa,	15,380	
Mont Cervin or Malterhorn,	13,974	
Passage across Mont Cervin,	10,100	
Breithorn,	12,800	
Road across the Simplon,	6,579	

GROUP OF ST. GOTHARD.

Petchiroa, (one of the summits)	10,529
Pettina, (idem)	9,153
Fienda, (idem)	10,180
Passage of St. Gothard,	6,800
Furca,	14,040
Stella,	11,174
Piz Pisoc,	12,792
Source of the Rhone,	5,748
— Reuss,	7,088
The Aar, near Grimselberg,	5,945

FIRST HELVETIAN CHAIN BETWEEN BERN AND THE VALAIS.

Grimselberg,	9,704	
Lake of the Dead, on the Grimsel,	7,067	
Finsteraarhorn,	14,094	Tralles.
Schreckhorn,	14,038	Oriani.
Wetterhorn,	12,176	Tralles.
Pieschhorn,	13,325	
Eiger,	13,076	
Mönch, (the monk)	13,571	
Jungfrau, (the virgin)	13,720	
Doldenhorn,	12,030	
Blumli,	12,132	
Breithorn,	12,462	
Passage of Gemmi,	7,378	
Oldenhorn,	10,266	
Diablerets,	10,732	
Dent de Morcle,	9,541	
Niesen,	7,820	

SECOND HELVETIAN CHAIN BETWEEN BERN AND URI.

Muthorn,	10,446	{ Escher, Ebel, &c.
Gallenstock,	12,068	
Sussenhorn,	11,629	
Spitzli,	11,416	
Titlis,	11,416	

THE NORTH-WEST CHAIN CONNECTED WITH THE ABOVE RANGE.

Steinberg,	9,950
Bisistock,	6,941
Jauchlistock,	7,957
Scheinberg,	6,518
Hoch-Gant,	7,258
Mount Pilat, near Lucerne,	7,546

THE NORTH-EAST CHAIN

Schlossberg,	10,408
Wollenstock,	8,612
Wendistock,	10,134
Church of Engelsberg,	3,424

THIRD HELVETIAN CHAIN BETWEEN THE FOUR CANTONS AND THE GRISONS.

Trithorn,	9,754	{ Near Stella, see above.
Ober-Alpstock,	10,918	
Crispalt,	6,874	
Piz Russein,	13,858	{ Division of the chain.
Dreädi,	11,765	
Bistenberg,	10,265	{ Eastern branch, to the east of Glaris.
Hausstock,	9,454	
Hohe Kisten,	10,960	
Martinsloch,	10,112	
Scheibe,	9,986	{ Second di- vision.
Twistols,	10,518	
Great Kuhfirst,	7,308	{ Branch pa- rallel to the Rhine as far as the Lake of Con- stance.
Kamor,	5,772	
Hochsents,	8,111	
Leistkamm,	6,873	
Schnee Alp,	4,301	
Silter near Appenzell,	2,275	
Mount Zurich,	2,385	
Scharhorn,	10,864	
Klaridenberg,	10,693	{ Western branch in the Canton of Schweiz, &c.
Ross-Stock,	8,688	
Glarnisch,	9,561	
Ruffi, or Rossberg,	5,154	
Righi,	6,050	

GREAT RHETIAN CHAIN. (GRISONS AND TYROL.)

Passage from Airolo to Medel	7,192	near Stella.
Dachberg,	10,286	
Vogelberg,	10,948	
Muschelhorn,	10,956	Mayer.
Aporthorn,	10,948	{ Part of M. Adula.
Forest of the Rhine, (Rheinwald)	5,126	
Bernhardin,	10,137	
Tombahorn,	10,494	
Passage of Splugen,	6,310	
Septimer,	9,594	{ approxima- tion.
Longino,	9,355	
Passage of the Julier	7,280	
Err, summit of the Julian mountains, (Julierberg)	13,858	{ founded on tradition, too high.
Orteles,	12,859	Welden.
Hoch-Theroy,	12,439	
Platey Kogel,	10,390	
Lake Refen,	6,151	
Greiner,	9,380	
Schneiberg (near Sterzing)	8,274	
Brenner,	6,463	Von Buch.
Habicht,	8,793	

NORTHERN RHETIAN CHAINS. (GRISONS, BAVARIA, SALZBURG.)

Malixerberg,	8,034
Rothehorn,	9,487

Scsaplana,	9,813	
Kamm, (near Magenfeld)	8,101	
Coire, (town of)	1,918	
Piz Linard,	12,800 to 13,850	} Vague and incorrect estimate.
Hochvogel,	8,481	
Zugspitze,	8,243	} Chain between Tyrol and Bavaria.
Wetterstein,	8,122	
Solstein,	9,706	
Almenspitze,	8,684	
Watzmann,	9,655	Von Buch.
Breithorn,	7,772	
Lake of Tegern,	2,480	
— St. Bartholomew,	2,029	
Town of Munich,	1,191	
— Ratisbon,	1,034	

SOUTHERN RHETIAN CHAINS.

Sasso del Fero, near Lavenno,	3,230	
Pizzo di Onsera,	3,206	
Lake of Lugano,	930	
— Como,	686	
Milan,	517	
M. Gario, near Bormio,	11,756	} Chain of the Valteline.
M. Legroncino,	6,204	
M. Lignone,	8,666	} Euganean mountains.
M. Baldo,	7,406	
M. Maggiore,	7,209	
M. di Nago,	6,810	

GREAT NORICAN CHAINS. (AUSTRIA.)

The Great Glockner,	13,713	} Moll; supposed to be overrated.
Village of Heiligenblut (Carinthia)	4,484	
Hohenwart,	11,076	
Wisbach-Horn,	11,519	
Gross-Kogel,	9,700	
Taurn of Rauris,	8,592	} Taur signifies a mountain covered with snow.
Hohe Narr,	11,334	
Rauh-Eckberg (east of Salzburg)	7,831	} These mountains bound Carinthia on the north.
Wilden-Kogel,	5,813	
Salzburg, (town of)	1,391	
Thorstein,	9,632	
Kappenkarstein,	8,076	} Upper Austria, (Marcel de Serres, Schultes, and others.)
Kalmberg,	5,926	
Lake Hallstadt,	1,660	
Grossemberg,	8,932	
Peaks of Winnfeld,	8,583	} Styria and Lower Austria.
Hoch-Gailing,	6,204	
Schneeberg,	6,952	
Kahlenberg,	1,433	
Semmering,	4,704	

CARNIAN AND JULIAN CHAINS. (VENICE, CARNIOLA, CROATIA.)

M. Marero,	5,038	
Source of the Tagliamento,	4,412	
— Piave,	4,140	
Kranerriegen,	6,227	
Terglow,	9,906	Hacquet.
Karst, to the north of Trieste,	1,580	
Snisnik, or snowy mountain,	7,056	} The Dinarian Alps, probably a branch of Mount Hæmus.
Kleck,	6,692	
Plissavisza,	5,755	
M. Bardani,	4,374	
M. Biocava,	5,101	

SUBALPINE CHAINS TO THE NORTH-WEST.

Jura.

The Reculet,	6,177	} First chain of Jura.
------------------------	-------	------------------------

• "1,569"

Dole,	6,151	
Chasseral,	5,229	
Lake of Joux,	3,202	
Mont d'Or,	4,797	
Hassemate (Soleure)	4,774	
Rothfluh,	4,610	
Moron (Delemont)	4,412	
La Sale (Belley)	4,406	} 2d chain of Jura.
Gros Taureau (Pontarlier)	4,324	
Mont Sapeau,	2,902	} Chain between Jura and Vosges.
— Hircey,	2,295	

Jorat.

Mont Pelerin,	4,063	} A connecting link with the Bernese Alps.
Tour de Gourze,	2,936	
Lo Cole,	2,888	
Lausanne, (town of)	1,668	

Vosges.

Tete d'Ours,	4,580	
Presson,	4,266	
Ballon de Guebwiller,	3,956	
Ballon de Giromagny,	3,516	
Ballon d'Alsace,	4,124	
Haut de Honce,	4,400	
Grand Ventron,	3,160	
Donnersberg,	2,556	
Hesselberg, near Bingen	1,622	

Cote d'or, &c.

Mont Marceiselois (Langres)	1,663	Shuckburgh.
Division of the waters near Langres,	2,548	
Source of the Seine,	1,424	
Summit of Tasselot,	1,962	
Dijon, (town of)	664	

Black Forest.

Feldberg,	4,901	} Stein, Roder, &c.
Baelchen,	4,656	
Kandel,	4,168	
Kohlgarten,	3,930	
Lake of Eichen,	1,561	

Alb, (Suabia.)

Strenberg,	2,958	
Rostberg,	2,866	
Castle of Hohenzollern,	2,794	
Lake of Thun,	1,896	
— Sempach,	1,694	
— Lucerne,	1,431	
— Zug,	1,405	
— Zurich,	1,361	
— Constance,	1,160	
— Beat,	2,360	
— Geneva,	1,208	
— Neufchatel,	1,427	
— Bienne,	1,412	

HERCYNIO-CARPATHIAN MOUNTAINS.

Bastarnian Alps, or Eastern Carpathian Mountains.

Ruska-Poyana,	9,912	Balbi.
Gailuripi,	9,594	Idem.
Buthest, (Transylvania)	8,698	
Idem, (Walachia)	6,892	Jerchenfeld.
Lentschitz,	8,466	
Uenokar,	7,878	
Retirzath, (valley of Hatzur)	8,507	
Kukuratzo,	4,988	
Kronstadt, (town of)	2,020	
Sural (Szurul)	7,591	
Budislaw	7,974	

Proper Carpathian Mountains.

Gurabor,	4,882	
Pietrosz,	7,274	
Kriwan of Thurecz,	5,765	

Lomnitz,	8,460	} Wahlenberg, Thomson, Beudant.
Krywan,	8,036	
Presiba,	6,423	
Green Lake,	5,047	
Babia Gora,	5,786	
Czerna Gora,	5,116	

Gesenkergebirge. (Low Mountains.)

Alt-Vater,	4,802	} Kalupa and Mosch.
Peterstein,	4,709	
Source of the Little Oppa,	4,330	
Hackscha,	4,353	
Baude,	4,784	
Heaths of Brunel,	4,371	
Lissa Hora, near Teschen,	4,546	

Sudetes, or Riesengebirge (Giants' Mountains,) &c.

Hohe-Eule, (Glatz)	3,543	
Otterstein,	3,366	
Schneeberg,	3,266	
Sturmhaube,	5,052	
Schneekuppe,	5,277	} Gersdorf.
Zobtenberg,	2,460	
Vallies of the county of Glatz,	1,384	
Tafelfichte,	3,715	} Charpentier.
Leuchberg, (basaltic)	2,920		} Von Buch.

Erzgebirge, (Metalliferous Mountains.)

Lausche,	2,564
Anersberg,	3,148
Schneekopf,	3,531

Saxon Fichtelberg,	3,926
------------------------------	-------

Interior of Bohemia.

Holtsch, (Mittelgebirge)	2,252	} Kiemann and David.
Donnerberg, (idem)	2,673	
Vineyards of Melnick, &c.	640	
Prague, (the observatory of)	590	
Budweis, (town of)	1,252	
Kreutzberg, (between Bohemia and Moravia,)	2,175	
Rotschotte, (idem)	1,512	
Brunn, (town of)	550	

Hercynian mountains, Bohemian Chain (Bohmerwaldgebirge.)

Postling, (near Linz on the Danube)	1,924	} Kiemann and David.
Steinberg,	3,495	
Plöckenstein,	4,450	
Hohenstein, (rock of)	4,285	
Rhoen, (Bohemian)	3,484	
Lusen,	4,578	
Source of the Moldava,	4,064	
Ruchel,	4,844	
Arber,	4,830	
Schneeberg, (Franconian)	3,692	
Fichtelberg, (Franconian)	3,855	

Hercynian Mountains, Northern and Western Chain.

Beerberg,	3,182	} Forest of Thuringia, (Thuringerwald.)
Schneekopf,	3,172	
Inselberg,	2,974	
Observatory of Seeberg,	1,290	
Brocken or Blocksberg,	3,716	} Group of the Hartz.
Bruchberg,	3,218	
Winterberg,	2,848	
Kreutzberg,	2,934	
Dammersfeld,	2,696	} The Rhen mountains.
(Heller)	2,326	
Meisner, (basaltic)	2,775	
Feldberg, (the ancient Taurus)	2,775	
Salzburger Kopf,	2,774	} Group of Westerswald.
Lewenberg,	2,020		} Volcanic group of Siebenbergen.
High Veer, to the west of the Rhine,	2,294	} Marshy ridge between the Meuse and the Moselle.
Eifel, (idem)	1,694	
The Ardennes,	1,812	
Heights in the department of the Orne,	960 to 1,066	
Cape Stubbenkammer, (Rugen)	600	
Perleberg, (Mecklenburg)	682	
Galtgarbe, (Eastern Prussia)	540	
Himmelberg, (Jutland)	1,278	
Monts Arée, (Brittany)	996	
— Noirs, (idem)	816	
The Seine at Paris,	108	

MOUNTAINS IN GREECE, &c.

Mountains of Croatia, &c.	6,396 to 7,462	See above.
Orbelos, north of Macedonia,	9,600 to 11,730.	
Hæmus,	6,376 to 7,462	
Olympus,	6,522	doubtful.
Athos,	6,778	
Pindus,	7,460 to 8,520	
Monte Nero, (Cephalonia)	4,264	
Ligrestosowo, (White mountains of Crete)	7,572	Sieber.
Psilorit, (Ida)	7,674	Idem.
Vrisina, (Crete)	2,824	Idem.
Kentros, (idem)	3,665	Idem.
Lassite, (idem)	7,462	Idem.
Mount Jupiter, (Naxos)	3,300	Gauttie
Cocyla, (Scyros)	2,588	Idem.
Delphi, (Scopelos)	2,295	Idem.
Mount St. Elias, (Milos)	2,556	Idem.
Idem, (Paros)	2,524	Idem.
Idem, (Thera)	1,924	Idem.
Veglia, (Astypalæa)	1,582	Idem.

HEIGHT OF BUILDINGS.

Cross of St. Peter's,	536	} above the base of the church.
Minster, (Strasburg)	463	
Summit of the Pantheon at Paris,	355	} above the Seine.

BOOK XCV.

EUROPE.—INTRODUCTION.

Climate.—Distribution of Animals and Plants.

THE inhabitants in different parts of Europe boast of their genial climate, and the rich produce of their fields, and are sometimes vain enough to suppose that an intellectual superiority is in a certain degree the result of these natural blessings. The Spaniard sits under the shade of his olive tree, and is thankful that his country is rich in oil. The Frenchman talks with contempt of the beer-drinkers in Germany, and insists gravely that the mists in England have some effect on the moral character of the people. A learned Greek, extolling the pure sky and the fine figs of Attica, insinuates that a clouded atmosphere and coarse fare have impaired the intellectual acuteness of the *Ultramontanes*. Travellers may have spread more correct notions on such subjects among the higher classes, but many errors still exist, which they have been unable to eradicate. We conceive with difficulty the beneficial results attending an order of events different from that which we are accustomed to observe. It may perhaps be unnecessary to cite the example of a Sicilian baron, who told an Englishman that there could be no oxen in his country, since grass never grew in England on account of the extreme cold. But even some well informed persons cannot easily comprehend that each European climate has its advantages. The Italian, shivering at the mere mention of a temperature which freezes rivers and the arms of seas, doubts the description which the Dane gives of the incomparable verdure of the forests that limit the Sound. We ourselves have lately seen two French travellers, who having unfortunately observed the uncultivated state of some Italian districts, condemned the whole region to the south of the Alps, its climate, its edifices, and even its women.

Physicians, in the innumerable dissertations on their science, have applied to all the regions of the earth, some local aphorisms of Hippocrates, applicable only to Greece, Asia Minor, and a few adjacent countries. The natural philosopher discovers general laws to account for phenomena which can only be explained under certain modifications. The more numerous relations are rejected, because, not having been sufficiently observed, they cannot be submitted to calculation. Thus a needless erudition, and a premature science, ill adapted to illustrate the true theory of European climates, have added to the mass of popular errors.^a

The peninsular climate of Europe is subject to many

more exceptions than any other on our globe. The distribution of the solar heat is certainly the chief cause of the difference in European climates; but if that cause existed only, England must have been as cold as Poland, and France as Germany. A rapid progression of heat must have commenced at the forty-fifth degree of latitude, and its effects must have been felt at Constantinople as well as at Rome. But astronomical climates are modified in our part of the world by three leading physical causes.

Europe, throughout a space equal to almost the whole of its breadth, is contiguous on the east to Northern Asia, which, from the elevation of its central plateau, and other causes already indicated in this work, is as cold as North America. That frigid temperature must have been communicated to the north of Europe, had our continent, like that of America, been attached to the polar regions. The same consequence must have followed, had there been on the south lofty mountains, forming an extensive table-land like that of Thibet. But, as it is, the cold air of Siberia is wafted by a continued east or northeast wind across the vast plains of Russia and Poland. Italy is sheltered from these sudden changes of temperature by the Alps and Appennines; and in all the countries that are protected from them, the climate is less rigorous; thus the vine flourishes in Bohemia, and in Upper Hungary. This single cause produces remarkable effects even in the north; the climate of Christiania, in Norway, is rendered milder than that of Berlin or Warsaw, and much more so than that of Petersburg. No barrier interrupts the east wind's course over all the plains of eastern Europe; and for that reason, that half of our continent is much colder than the western regions under the same parallels. Greece, although protected by Mount Hæmus, is sometimes exposed to the winds of Scythia, often alternating with those of Mount Taurus; hence the great inequalities in the winters and summers in that country, compared with those of Italy.

If the cold of our climates is rendered more intense by the winds of Asia, the opposite effect is produced by those of Africa. South and southeast winds, which warm the shores of southern Europe, arrive from the burning deserts of the immense Sahara, and the arid rocks of Nubia and Egypt; these sultry blasts would be still more oppressive, were they not tempered, during their passage, by the exhalations which rise from the Mediterranean. The plague of Athens, according to Hippocrates, was produced by a south

^a "It is the mania of physicians, in their innumerable dissertations, to apply to all the regions of the earth certain local aphorisms of Hippocrates, true only in relation to Greece, Asia Minor, and some of the neighbouring countries. It is the mania of natural philosophers to create general laws, by comparing certain complicated facts by means of a few relations which may be submitted to calculation; at the same time neglecting their

more numerous relations which cannot be submitted to calculation, from not having been observed for a sufficient length of time. Thus a superannuated erudition and a premature science have diverted us from the true theory of European climates, and have added the errors of the learned to the mass of popular errors."—P.

wind; the *scirocco*, which advances sometimes to the foot of the Alps, diffuses in these regions its baneful influence. The great projection formed by northern Africa, in which the numerous chains of Mount Atlas rise, destroys partly the influence of the winds from the Sahara; these winds, refreshed and cooled, are changed into zephyrs on the western coasts of Italy. But Spain, from its vicinity to the African continent, and particularly to the wide desert which separates the state of Algiers from Morocco, is exposed to the *Solano*, a sultry and unwholesome wind; the short range of the Sierra Nevada affords only shelter to some valleys. We may conclude that the African winds, although broken and modified by the interposition of seas and mountains, warm and dry the whole mass of the European atmosphere in the southern portion of our peninsula. If the Mediterranean were broader, or the range of Mount Atlas higher, and the snows which cover it more durable, the coasts of Greece, Italy, and Spain, would be more frequently obscured by mists and rain, but the trees might then be clad with a thicker foliage, and the plants adorned with a fresher verdure. If, on the other hand, Africa were nearer our shores, or the chain of Mount Atlas lower, the southern regions of Europe might be compared to Persia, a country in which the cold of the north is almost contiguous to the oppressive heat of the south, because the chill winds from the ridge of central Asia encounter the sultry blasts from the deserts of Arabia.

The third leading cause which modifies our climate is the vicinity of the Atlantic and Northern Oceans. The continual motion of that immense collection of water along the western coasts of Europe, prevents the ice of the Polar seas from obstructing or even approaching these shores. Two facts may enable us to appreciate this advantage. Newfoundland, at the 50th degree of latitude, is surrounded with ice, and covered with cold fogs. The climate of Ireland, Cornwall, and Brittany, although humid, is temperate. The gulfs of Norway, at ten or fifteen degrees higher, are almost always open; the coast of Greenland, exactly opposite these gulfs, is most frequently rendered inaccessible by barriers of fixed or floating ice. That movement of the waters ceases beyond Cape North, or is modified by local positions as yet imperfectly known; and the seas in part of Europe are blocked with ice.

The atmosphere above the surface of the Atlantic ocean is subject to general movements, which modify the climate of Europe in two different ways. While it retains the cold temperature of winter, it is often attracted to the European continent, and fills the space of an atmosphere rarified by heat. These changes happen frequently during our premature springs, and that sort of atmospheric tide is the general cause of those returns of winter, disagreeable to man and hurtful to plants, which are common to the whole of western Europe, particularly to the northwest of France, to Holland, and Denmark. If, after such an influx of the frigid and moist atmosphere of the ocean, a dry and cold east wind arrives from northern Asia and Russia, we experience that rude temperature, the frequent recurrence of which, in the time of our ancestors, the Celts and Germans, was partly owing to the uncultivated state of their countries. As Russia and Poland are now better cultivated, and reflect a greater quantity of heat, the east winds are probably milder; but as many of the forests in France, Germany, and

England, have been destroyed, the same obstacles, for the last four or five centuries, have not been exposed to the course both of the east and the west winds. Thus it may be shown that the climate of the countries situated between the Pyrenees and the Dofrines has become warmer, but at the same time more variable. We are thus also enabled to explain why the vine, a plant that cannot resist the sudden changes of climate, was cultivated during the twelfth and even fifteenth century, in Lusatia and England; and by the care and patience of the monks succeeded at least to their satisfaction in sheltered spots, of which the temperature was then more regular. In the same places, at present, the grape never arrives at maturity. Other plants, better adapted for our climates and the sudden changes of the spring, have been cultivated in later ages in the northern countries of Europe.²

The influence of the oceanic atmosphere varies in its intensity and character according to the latitudes. The same wind is salutary and agreeable in Portugal, and accumulates in some narrow Norwegian gulfs a dense and unwholesome air. The British islands, wholly exposed to the climate of the ocean, are liable, in a less degree, to the sudden effects of the great conflict between the maritime and continental winds; their temperature, always variable, is never subject to excessive heat or extreme cold.

The atmosphere of the Atlantic ocean, after it loses its wintry temperature, is driven upon the western coasts of Europe by southwest winds, the course of which may perhaps be attributed to certain modifications of a general movement in the air from the tropics to the poles; vapours then fall in refreshing showers, fertilize our fields, expand the germs of plants, and fill the air with an aromatic fragrance.

The spring passes from south to north in western or *oceanic* Europe, but never quits wholly the shores of the Mediterranean, while its appearance in the northeast of Europe is fleeting and of short duration; hence result several differences in these three great European divisions. The forests and gardens in the south retain always some degree of life, but we anticipate in vain that complete and rapid resuscitation of nature which takes place in northern latitudes. The western maritime countries possess, in some degree, both these advantages. The inland regions connected with Asia exhibit the horrors of winter, the stillness of frozen lakes, ever-verdant pines, and the repose of vegetation and nature.

The three great European climates may be represented by a triangle, of which the three sides meet at Cape St. Vincent, Cape North, and the north of the Caspian Sea. On the first side temperature becomes lower in winter as we advance from south to north, and on the second it decreases with irregular variations as we proceed eastwards; on the third it remains almost stationary as we pass from south to north. The summer's heat is subject to other general laws; in the north its intensity is augmented by the length of the day, and moderated on the oceanic side of the triangle by the temperature of the sea; it becomes oppressive on the Asiatic side, on account perhaps of the sudden transition from the severe cold of winter; lastly, it varies greatly on the side next the Mediterranean, according to the direction of the winds, or other local causes, but diminishes on the whole towards the east.

To have a more detailed view of the external causes which modify the climate of Europe, a heptagon may be

² "On the other hand, the cultivation of the *cerealia*, which are less affected by the atmosphere of the ocean and the vernal changes of tempera-

ture, has been extended to the northern extremity of Europe, and rye now prospers where only oats were formerly harvested"—P.

substituted for the triangle. The first side may be drawn fronting Africa, from Gibraltar to Crete; the second, fronting Taurus and Caucasus, from Crete to the sea of Azof; the third, the Caspian and the deserts in its vicinity; the fourth, the Ural mountains and Siberia; the fifth, the Frozen Sea, from the Straits of Waygatz to Cape North; the sixth, the northern part of the Atlantic Ocean, from Cape North to Ushant; and the seventh, the central part of the Atlantic. The septenary division may be useful in classifying almost all the local influences which modify the continental climates; those of the islands must be considered apart. We believe that, from a careful examination of these figures, our climates may be better understood than from any classification or description.

These general phenomena depend on the movements of the atmosphere; but we have also to consider the effects occasioned by the elevation of the surface. Esmarck observed that on the north and northeast sides of the Dofrines, on which the solar rays fell obliquely, the snow line descended to 3000 feet above the level of the sea, while on the south and southeast sides, where the action of the solar rays was more direct, the snow line reached an elevation of 7000. Wahlenberg and Von Buch calculated the limit of perpetual snow in the maritime part of Lapland at 3300. It does not descend so low in the interior of the country, but that circumstance must be attributed to local causes. The cold winds that descend from the Dofrines render the winters of Jutland very severe, and influence also the climate of Sweden. The snow line varies between seven and eight thousand feet in Switzerland, at the 46th degree of latitude. The cold, in that country, is more or less severe, in proportion to the greater or less extent of its mountainous chain; in some ravines inaccessible to the direct action of the solar light, perpetual ice is observed at 5000 feet above the level of the sea. The immense masses of ice with which these mountains are covered descend sometimes into the vallies, and, by remaining in them, occasion considerable variations in the temperature. But on the other hand, the force of the summer's heat destroys more rapidly the effects of winter, and the increase and diminution of ice are nearly the same from one year's end to another. The snow line commences in the Pyrenees at 8400 feet, and that elevation is lower than we might have supposed, from only taking into consideration the latitude of these mountains. Etna is always covered with snow at the height of 9000 feet; but it may be believed that islands and peninsulas, being comparatively narrow and of small extent, reflect a less quantity of heat.

Other effects, occasioned by the height of European countries, may be shortly examined in this part of our work. A great part of central Europe, on the north and west of the Alps, descends by a continued inclination towards the Baltic, the North Sea, and the Atlantic Ocean. The natural effects arising from the greater proximity of the pole are counterbalanced by the lower level of the northern boundary of that inclined plane. Normandy is not much colder than Burgundy, and the winter in Denmark is not much longer than the same season in Bohemia. Hardy plants, such as the oak, the mountain ash, the lime, and different kinds of grain, prosper equally in many countries in that part of Europe, although they are removed from each other by six or seven degrees of latitude. On the other hand, the descent from the Cevennes and the Alps towards the western basin of

the Mediterranean and the Gulf of Venice is very rapid, and the level sinks as much in the space of one degree of latitude as it does in six or seven degrees on the other side. The traveller may walk on perpetual snow, in the morning and lie down in the evening among olives and myrtles. In this rapid transition from the climate of Lapland to that of Italy, we cannot expect to find a constant temperate zone, and consequently the vegetation of that zone in all its beauty. The trees of the north, on the southern sides of the Alps, do not form so magnificent forests as those in the northern plains. These remarks are only applicable to Germany, France, Lombardy, the Low Countries, and Denmark; the other transversal sections of Europe present a very different appearance. The level of ancient Poland is nearly uniform in the line formed by Memel, Pinsk, and Cherson. The climate on the shores of the Euxine and on those of the Baltic ought therefore to differ exactly in the ratio of their latitudes. But as the first is nearer the elevated land of Asia, it does not enjoy all the advantages that might otherwise result from its position. Another section of Europe, taken between the White and the Black Sea, by Archangel, Moscow, and Cherson, exhibits an immense plain, which rises gradually towards the centre, but is not crowned by any range of hills, so that the cold in the centre increases with the elevation of the level, and extends freely in all directions. We observe a remarkable phenomenon in the section from Petersburg to Astrakan; in other words, the Caspian sea is lower by 150 feet^a than the Baltic and the ocean. That difference is too inconsiderable to occasion any great change in the climate; still, however, the temperature in summer could not be so high at Astrakan, were that town on the level of Moscow or Lemberg; and the intense cold which succeeds the warm weather could not be so severely felt in a low plain, and at the 46th degree of latitude, if these countries were sheltered by a chain of mountains on the north. Such are the principal sections which tend to modify the climate of Europe. The striking exceptions that the Greek, Spanish, and Scandinavian peninsulas present, shall be afterwards considered.

These causes, which influence European climates, explain sufficiently the principal phenomena that physical geographers have observed. Humboldt has attempted to reduce them to geometrical formulæ in his method of *isothermal* lines, which indicate the same mean temperature, and of those which indicate the same temperature of summer and of winter, and are therefore termed *isothermal* and *isohyemal*.^b That method so well adapted for the purposes of terrestrial physics, may probably, like all the other of that distinguished philosopher, be of great use in geography. But the application of it cannot as yet be attempted, for the method has not yet been fully explained by its celebrated inventor.^c We shall cite, however, an example. The *isothermal* lines in the north and in the centre of Europe, form curves which descend towards the south as we advance eastwards, or in other words, the mean temperature of the places in the same latitude becomes lower towards the east. Thus.

Upsala is	4.5	Petersburgh	3.0
Copenhagen	6.1	Moscow	3.6
Brussels	8.8	Prague	7.7
St. Malo	9.8	Vienna	8.2

The cause of diminution of temperature in the two first instances must be ascribed to the proximity of Siberia and

^a Fr. measure. See p. 361, note.

^b "Isothères—isochimones."

^c M. de Humboldt has given an outline of his theory in the transactions

of the Society of Arcueil, but he intends to explain it more fully in a treatise on climatology.

the higher lands in Tartary. In the others, the same cause is to be attributed to the higher level of Bohemia and Austria. Thus there is a disadvantage in the method of *isothermal* lines when applied to elementary geography, for it unites under one point of view results very different in their nature and causes; it abounds in apparent irregularities, of which it does not furnish the explication. Our remarks may be illustrated by another example. The mean temperature of Lisbon is 12, and that of Naples, which lies in a more eastern and northern situation, 13.5. This anomaly is easily accounted for, if it be recollected that Lisbon is influenced by the oceanic climate, and Naples by that of the Mediterranean; these two places, then, cannot according to the new method, be contrasted with each other. The climates of Gibraltar, Malaga, Valencia, Palermo, Naples, Rome, Athens, Thessalonica, and Constantinople, may be compared, and if attention be paid to local causes, after all the requisite materials have been obtained to enable us to trace two isothermal lines between these points, we believe that they might form two very irregular curves. The method of isothermal lines in the present state of our knowledge may be considered an ingenious theory, which merits the attention of physical geographers, but it does not as yet afford a principle of classification applicable to the geography of climates.

It remains for us to consider the humidity of the atmosphere, a subject not less important than that which has been last examined. Schow fixes at 25 inches the ordinary quantity of rain which falls annually in that part of Europe on the north of the Alps; the corresponding quantity on the south of these mountains is calculated at 35 inches; but it is very probable, if the snow be taken into consideration, that the equilibrium may be established, and that the whole European atmosphere, in a period of three, or at most ten years, is subject to the same degree of humidity. It is true that the oceanic climate of Europe is sometimes, as in 1817, more than usually humid, a fact that must be attributed to the melting of the floating ice driven occasionally to the 45th degree of latitude. The climate of the Mediterranean, on the other hand, is, from long continued south winds, subject to great droughts; some plains in the Asiatic climate may be affected in the same manner by the dry winds from the deserts on the east of the Caspian; but these differences disappear in a period of no very great duration. Schow remarks correctly, that the rain descends more slowly and uniformly in the countries to the north of the Alps than in those to the south; the torrents which burst suddenly from the clouds in that part of Europe recal to our mind the phenomena of the rainy season in the torrid zone. The number of rainy days in the north may amount throughout the year to 150 or 160; those in the south do not exceed 90 or 100. If the days in which snow falls be added to the first number, the difference between the two climates will appear still more striking. It is on that account that the small gramineous plants in the north, which are fertilized by frequent and gentle showers, have so rich a verdure, the absence of which, in southern countries, the Italians confess that they regret. From the continuance of the vernal temperature and other local causes, the leaves of the *Fagus sylvatica*, in Denmark, have that pale emerald tint which he same plants lose in the south.

The steepness of the ground in many parts of southern Europe causes the rain, which descends in torrents, either to flow too rapidly or to remain stagnant; hence the number

of fertile fields, naked rocks, and uncultivated marshes at the base of the Appennines, Olympus, and Parnassus. The lands in the north, though less fruitful, are at least more equally watered, and retain longer their strata of vegetable mould.

If the heat accumulated in the long days of summer, and the more regular distribution of rain be considered, it may be concluded that the countries in the north-west of Europe possess advantages relative to climate, equally great though different from those in Italy and Greece.^a

Europe is perhaps, on the whole, more healthy than any other portion of the earth. The fevers common in the marshes on the banks of the Don, in the Bannat of Temeswar, in the neighbourhood of Rome, and in the island of Walcheren, the pestilential vapours in some Sardinian valleys, and the unwholesome fogs near some Norwegian gulfs, are only local evils. Other epidemic diseases, such as the plague in Turkey, the yellow fever in Spain, and the *plica* of Poland, are not to be attributed to natural causes, but to the defects of governments or the habits of the people. We are unable, from our ignorance of medicine, to classify the prevailing diseases of Europe, according to the three great divisions of the eastern, western, and southern climates. Such a subject might merit the attention of physicians; but it may, however, be affirmed, that in every part of Europe, men who lead a frugal life arrive sometimes to a very advanced age. Instances of this sort are as numerous on the mountains of Sicily as on those of Norway. The physical strength of the inhabitants in the north and in the south of Europe, does not appear to us to vary in the ratio of climates, but according to the origin of the different races.

European plants are subject to the influence of three prevailing climates. The temperature of the north of Europe, on the western coasts, is not fatal to plants which perish under the same parallel in every other corresponding part of our globe; thus different kinds of grain, particularly barley and oats, are cultivated in Norway at the 70th degree, whilst on the opposite coasts of America, such cultivation ceases at the 52d. The other gramineous plants which cover the meadows, of Europe, grow in the northern regions of America, but never appear in the same luxuriance.

Trees are never seen in any other part of the world beyond the 60th degree of latitude; in Europe the fir and the pine rise to a great height, and the tender beech which adorns the forests of Russian Poland at the 50th or 51st parallel, grows in greater perfection in Norway at the 59th. The Italian laurel thrives in the open air on the western coasts of France, and some vegetables, which were until lately believed to be confined to Portugal, have been transplanted on the hills in the neighbourhood of Plymouth. Many plants, however, require a warm and a dry climate; thus, if we set out from the departments of Gironde or Charente, it may be observed that the vine succeeds best in the interior of the continent, where it extends to the 50th degree.

Two distinct phenomena mark the influence of the Asiatic climate on the vegetation of Europe. The length of the winter in the north and the centre of Russia, is fatal to several trees and plants which thrive under the same parallels in Germany and Scandinavia. To trace correctly the *Flora* of Denmark, Mecklenburg and Holstein, we

^a Schow's Comparison between the north and the south of Europe. Copenhagen, 1822. (In Danish.)

must descend towards Kiow, Orel, and the Ukraine.^a In those countries, the culture of wheat is certain, and the oak arrives at perfection. But on the other hand, the plants of the Scandinavian peninsula, and even of Lapland, are not unknown in Lithuania and in central Russia, under a parallel comparatively low; thus the lichen of Lapland^b is frequently seen in the plains at the 54th degree.

Such are the modifications produced by the Siberian climate. But the sandy and saline plains which bound Europe towards the Caspian sea, are influenced by the dry and sometimes burning winds that blow from the deserts which bound Bucharia on the north, and surround the Aral lake. To that cause, and to the quality of the soil, must be ascribed the absence of the European forests towards the Don, the Lower Wolga, and the Ufa. A scanty vegetation, consisting of saline plants or lowly shrubs, covers these dismal plains.

The third side of the European triangle presents to the African climate a series of declivities, terminated on the north by a very lofty chain of mountains. The vegetation of that part of Europe^c is confined to a range of coasts and to some peninsulas and islands in the south. The traveller who enters these regions for the first time, views with delight, landscapes that are never seen in the finest countries to the north of the Alps. The vine entwined round the elm, forests of olive, almond or fig trees, and the majestic symmetry of the cypress, are the first indications of this genial climate. The scarlet flowers of the pomegranate, the elegant myrtle, and the fragrant exhalations of oranges, obscured under a dark green foliage, convince the stranger that he is in the garden of Europe. Other differences, though less striking, cannot escape his observation; the gladiolus, the varied coloured convolvulus,^d and the narcissus, are seen in the fields, and the banks of the streams are sheltered by thickets of the rose laurel. The cistus grows on the sides of calcareous hills, and the acanthus among the ruins of ancient buildings. The botanist observes species of plants wholly unknown in more northern countries, as the *psoralea*, the *cercis*, and the *biserrula*. Different families abound in a greater variety of species, as the aristolochia and the malvaceæ; others, as the medicago and the anthyllis, attain to a greater height than they ever reach in the north. Some of the grasses and reeds exhibit a new character; the flowers of the *Canna saccharina*,^e of the *Lygeum spartum*, and the *Lagurus ovatus*, display the bright hues of the tropics. The *Arundo donax* is almost equal in height to the bamboo, and the *Chamarops* may give a faint idea of the lofty palm.

The plants near the mountains which limit the horizon on the north resemble those of central Europe; and, from the elevation of the soil, they may be compared to the productions of northern countries. The ultramontane blasts^f strip many Italian trees of their foliage, but the shores of the sea are covered with evergreen plants, the laurel, the myrtle, the rosemary, the cork tree, the holm oak, and the lentisk.

As we advance southwards to the plains of Sicily or Andalusia, the vegetation assumes an African character;

the stiff foliage of the aloë^g appears beside the massy trunk of the Indian fig tree, and in some fields the slender date tree is seen waving in the air. But, in Greece, the atmosphere is cooled by the winds which descend from Hæmus and Taurus, and the European vegetation is modified by that of Asia or rather of Caucasus. The eastern plane, the sycamore, and the cedar, are common to the European and Asiatic shores of the Archipelago; and the linden, the oak, and the beech, seem to connect the German and Carpathian forests with those of Caucasus, which are separated from the woods of Russia by the naked plains on the Don and the lower Dnieper. The interior of Thrace is not, perhaps, widely different as to its vegetation from Moravia, and, according to modern botanists, the Greek *Flora* has three times as many plants common to Scandinavia as that of Italy. The orange and the olive trees thrive in some sheltered spots under the rocks of Taurida, on the north of the Black Sea, and in a latitude higher than that of Lombardy.

These are some of the causes which characterize the vegetation on the three sides of Europe; other causes, that depend on the nature of the ground, and its elevation, are now to be considered. The influences which particular soils may have on vegetation, can, in the present state of chemistry and geology, be very imperfectly determined. Such influences are modified by too many mechanical causes, or by others wholly unconnected with them. The effects of the elevation of the soil may be more easily ascertained.

Forests of birch trees grow in Norway under the polar circle, at an elevation of 1483 feet. The Lapland willow, or *Salix lanata*, reaches nearly to the snow line, and the dwarf birch is only removed from it by a distance equal to 924 feet. In southern Norway, different firs thrive at the height of 3000 feet above the level of the sea, and several kinds of apples ripen at 1000. Some vallies exposed to the sun are cultivated at the height of 1800 feet.

Cultivation is not continued in the Sudetes above 3360 feet; the forests in the Carpathian mountains terminate at 4200, but the *Pinus pumilio* grows at the height of 5000. There exists probably a wide difference between the northern declivity which fronts Russia, the eastern opposite the Euxine, and the southern above the Hungarian plains; but these differences have not as yet been sufficiently observed. The Alpine forests reach generally to an elevation of 5000 feet, the fir, 5500, and the green alder, 6120. Saussure observed the *Daphne cneorum* at 10,680, and Ramond found the same shrub on the highest summits of the Pyrenees. The heights at which these trees and plants flourish on the Italian side of the Alps are greater by 6 or 700 feet. The culture of grain ceases about the level of 3300, and that of the vine at 1700. In the Pyrenees, large trees grow at the height of 6900, and even 7200 feet; the Scotch fir grows 200 feet higher. Few observations have hitherto been made in southern Spain and in Greece. The Sierra Nevada, in particular, demands the attention of the naturalist from its elevation and its proximity to Africa. As to peninsular

^a The *Ornithogalum luteum* and *nutans*, the *Enothera biennis*, the *Ranunculus lanuginosus*, the *Cytisus laburnum* and *nigricans*, the *Dianthus superbus*, the *Hyacinthus comosus*, the *Cornus sanguinea*, the *Cyperus fuscus*, the *Panicum sanguinale*, the *Festuca fluitans*, the *Pimpinella anisum*, and the *Brassica rapa* and *arvensis*, are the species which establish a remarkable resemblance between the plants of Denmark, Volhynia, Lesser Russia, and the banks of the Don. This analogy is perhaps to be attributed, in some respects, to the migrations of the Goths.

^b Rein-deer lichen.

^c "Vegetation Méditerranéenne."

^d *Convolvulus tricolor*.

^e The sugar-cane, *Saccharum officinarum*, L. It is cultivated in some of the most southern countries of Europe, as in Sicily and the south of Spain.—P.

^f *It. tramontana*; Fr. *bise*.

^g "Agave," American aloë.

Greece, we are assured that the tops of the mountains are covered with fine trees, but no inference can be derived from that fact, for the height of these mountains is still unknown.

The same subject may be considered in a different point of view, or in its relation to the culture of trees and plants necessary for the subsistence of man, or useful in the employment of his industry. These plants are commonly found in plains, or countries of mean elevation; the different kinds of grain, which have contributed so much to our civilization, ripen in the whole of Europe. Rye grows in Finland at the 64th degree of latitude, but yields more abundant harvests under a lower parallel. Wheat is cultivated at the 62d degree, but thrives between the 36th and 50th; its ears are ten or twelve times larger in Calabria than in Germany. Maize, which has been brought to our continent from America, succeeds at the 50th degree; and rice, which was originally imported from Asia, grows at the 47th. The potato, first introduced in the year 1623,^a is now spread over the whole of the European peninsula. We have already spoken of the vine, and the causes which have reduced its culture. At the 45th degree it flourishes in every exposure; onwards to the 50th it declines in the neighbourhood of the North sea, and thrives in inland countries, where the climate is less subject to variations. It is cultivated beyond the 50th parallel in Saxony and Bohemia, but its fruits not sufficiently warmed by the solar rays are comparatively acid. Extensive plantations of hops are observed beyond the regions of the vine; they cover very large tracts of land between the 50th and 60th degree of latitude.

Thus from the distribution of the alimentary plants which we have mentioned, some inferences may be derived concerning the different kinds of food consumed by the people in Europe. A line consisting of several curves, drawn from the south of England across French Flanders, Hesse, Bohemia, the Carpathian mountains, Odessa, and the Crimea, marks nearly the limits between the countries in which wine or beer is generally drunk. To the south of the same line bread is commonly made of wheat;^b but rye is substituted in the north, and in some southern but mountainous regions.

The countries in which oil or butter is used may be separated by another line extending along the Pyrenees, the Cevennes, the Alps, and mount Hæmus. On the one side the pasturage is better, cattle abound, and a greater quantity of the food which they supply is consumed. If there be a great difference in the physical qualities of the man who lives habitually on animal food, beer, milk, and butter, and another whose ordinary diet consists of bread, wine, and meats dressed with oil, it must be confessed that the contrast is only obvious between the inhabitants of widely distant countries, as the Spaniard and Italian on one side, and the Swede and the Russian on the other. As to the intermediate states, the effects of different diet are not easily discriminated. Wine is common in Normandy, but the Norman eats as much animal food as the Englishman, and the Bavarian consumes more beer than his neighbour in Suabia. The food of the lower orders has been much changed by the introduction of the potato; and the great consumption of tea

in England has perhaps diminished that of beer even among the common people. The higher classes live almost every where in the same manner, and elude the effects of climate by obtaining the produce of every land. Many conclusions which have been deduced from the different kinds of food used in European countries, appear to us unsatisfactory or erroneous.^c

The cherry and the plum resist the severity of northern climates; the first ripens near Trondheim in Norway, and Jacobstadt in Finland, at the 63d degree, but is seldom seen in Russia beyond the 60th; on the other hand, it becomes rare in Italy, and grows only in the mountains of Sicily. The apple flourishes and ripens at the 55th degree, but in more northern latitudes it hardens suddenly, and never arrives at maturity; if, on the contrary, it be transplanted to the southern confines of Europe, it loses its flavour and agreeable taste. The gooseberry and other fruit bearing shrubs succeed rarely in the south. The apricot and the peach have been cultivated with great advantage at the 50th parallel; these fruits are indigenous to the mountains of Armenia and the cold provinces of Persia. The fig ripens beyond the 50th degree, but the countries best adapted for it are those in the southern extremities of Europe. Although the olive resists the severe winters and cold winds of the Alps, the decay or frequent destruction of the plantations beyond the 44th degree, shows clearly that the best region for it is that near the shores of the Mediterranean, below the elevation of 1200 or 2000 feet. In like manner the country of the orange does not extend beyond 43 degrees and a half, and commences in Tuscany or at the Hieres. The olive plantations near San Remo, and in some other districts farther north, like the date trees in the neighbourhood of Bordighiera, may be considered local exceptions, accounted for by the shelter that these plants receive from the Appennines. The palm, the cactus, the aloe, and some other plants indigenous to the two Indies, succeed near Lisbon, in Andalusia, and in Sicily, below the 40th degree. The sugar cane has never been cultivated in Europe beyond the same parallel; it is not long since much labour was bestowed on it in Granada, Majorca, and Sicily.

Two very useful plants, flax and hemp, may be raised throughout the greater part of Europe; the first thrives best in northern climates, and its culture extends to Finland; but it is seldom observed in Ostrobothnia or in Russia beyond Kostroma and Jurostan; the second flourishes in Poland, Russian Ukraine, Alsace, Valencia, and Calabria. Cotton grows in the south of Europe, but does not yield such harvests as in America and India.^d

We have considered, in our account of the three European climates, the general distribution of such trees and shrubs as grow without culture. The fir or *Pinus abies* is found in the whole of Europe within the sixty-seventh parallel; the loftiest trees grow in the north. The sandy shores of the south are covered below the forty-sixth degree with the sea pine;^e and the *Pinus pinca*, which resembles the palm in its growth, forms extensive forests on the Alps, the Pyrenees and the banks of the Tagus. The wild pine is^f scattered throughout most countries in Europe below the sixty-eighth parallel; the Scotch fir or *Pinus picea* is seldom seen beyond the six-

^a Sir Joseph Banks has satisfactorily shown that potatoes were first brought from S. America to Spain about the middle of the 16th century, as they are mentioned, under the name of *papas*, in Cicia's Chronicle, printed in 1553. They were introduced into Ireland by Sir Walter Raleigh, in 1586, and soon carried over into Lancashire; but near half a century elapsed before they were much known at London.—*Ed. Encyc.—P.*

^b Also in some countries north of it, as in England.

^c Bonstetten, L'Homme du Nord et du Midi; Schow, Parallèle du Nord et du Midi.

^d Silk is also raised in the south of Europe; but this is an animal product.—*P.*

^e *Pinus maritima*.

^f *Pinus sylvestris*.

tieth degree. The common oak does not grow in Dalecarlia, the sixty-second parallel; it does not extend, on the other hand, to the southern extremities of Europe. The *Esculus* of Pliny^a supplies its place in those regions, and adorns the picturesque scenery of the south. The *Suber* or cork tree extends across Portugal, Spain, and Italy. The beech ceases near the sixtieth degree, and the lime near the sixty-third; both are found in great perfection to the south of the Baltic, and on the islands in that sea. The ash, the alder, the elm, and the black and white poplars, rarely extend beyond the sixtieth and sixty-first parallels.

The *Populus tremula* or the aspen tree, and the birch, extend beyond the verge of the Arctic circle, and enliven the solitary regions of Lapland. The sorb and different kinds of willow thrive in the most northern districts; the light seeds of the willow and the birch are driven by the wind, and take root near the line of perpetual snow. It is a remarkable fact that the large elder tree cannot resist the climate beyond the fifty-seventh parallel, while the delicate lilac displays its fragrant flowers on the banks of the Neva, and among the dismal rocks near Fahlun in Dalecarlia. The same plant, according to Haller, exists in a wild state in Switzerland, and may be considered indigenous to Europe.

Much care has been bestowed in the north on some trees of the south; but with all the aid of culture their progress has been slow. The Italian poplar reaches but a little way beyond the latitude of Denmark. The eastern plane, and the maple tree,^b which arrive at such perfection in Greece, degenerate on the north of the Alps. The *Fraxinus ornus*^c appears in great beauty in Calabria, but does not succeed beyond the forty-fourth degree. The same latitude may be considered the natural limit of the laurel, the myrtle, the mastic, the cypress, the terebinthine^d and box trees, all of which flourish best in the neighbourhood of the Mediterranean. The laurel, the olive, and the vine, were introduced by Greek colonists into the Crimea.

The uncultivated districts of the south, particularly those below the fortieth parallel, are covered with thyme, rosemary, jessamine and other odoriferous shrubs, but the caper bush is almost the only one which bears fruit. The rocks and marshes of the north, or those in particular beyond the sixtieth parallel, are covered with many berry-bearing shrubs, as the currant bush, the *Vitis idæa*, the *Myrtillus*, and the *Rubus chamaemorus*.

The animal kingdom in Europe is still less varied than the vegetable. The same animals may be considered common to the northern and north-eastern regions of our continent. The white bear and the blue fox appear from time to time

^a *Quercus Esculus*, L. "Chêne à glands doux." The acorns are of an agreeable sweet taste, and are used as an article of food in the south of Europe.—P.

^b *Acer Pseudo-platanus*. "Manna-bearing ash."

^d *Pistacia terebinthus*.

^e The Lemming is not arranged with the marmots, but with the field-mice.—P.

on the shores of the frozen sea. The rein-deer is found at the sixty-first parallel in Scandinavia, and six or seven degrees lower in Russia. The *Marmota lemmus*^e or lemming continues its migrations in straight lines from east to west, between the fifty-fifth and sixty-fifth parallel; the glutton is observed in the same region. The elk is generally found below the polar circle; it frequents Lithuania and even some parts of Prussia. The Uralian or Scandinavian sheep, which is common to the same countries, is distinguished by the form of its horns and the coarseness of its wool.^f

The naked plains that border the sea of Azof and the Caspian are frequented by some animals common to Asia. The Bactrian camel pastures in these lands, rich in saline herbs; the Circassian sheep are observed as far as the Oca and the Dnieper. The Tartars have brought to that part of Europe their fleet horses, and the fierce jackal has migrated thither in quest of prey.

The largest horses and oxen are found in the rich and verdant plains which extend from the Ukraine and Moldavia to Denmark and Flanders. These animals have probably existed there a long time in a wild state. The *urus* or the *aur-ochs*, (words which signify literally ancient or primitive oxen,) are still occasionally seen in Poland. We observe in these regions, and in the whole of central Europe, a breed of sheep originally the same as that in Spain and in England, but it has been improved in different countries by natural or artificial causes. The ass, which cannot be considered indigenous to the middle European zone, has been brought to it, and has degenerated.

The wild goat,^g the chamois and the marmot frequent the great mountainous chains of Europe, the Alps, the Pyrenees, the Cevennes, the Carpathians and Hæmus.

The animals that are found in the middle zone are for the most part common to the south. The ox and the horse in Italy, if they be well fed, are as stout as any in the Ukraine or in Holstein. The Arab horse was brought into the south during the invasions of the Moors and the Turks, and from it have perhaps sprung the Andalusian and other varieties; but it is not unlikely, from observations which we have made, that the Andalusian breed is the same as the *norbagge* or small Norwegian horse, and consequently, that both of them are descended from a common stock, and one in all probability indigenous to Europe. It is still less doubtful that the buffalo, an animal not found to the north of Hungary, has been imported from Asia to southern Europe. Two varieties of sheep, the mouflon in Sardinia,^h and the strepsiceros in Candia, are supposed to be indigenous to Europe. If the ass in the southern part of the Continent be not so too, it has been introduced from Asia Minor and Syria.

^f The characteristics, in the original, are, coarse wool, and horns common to the females.—P.

^g The *ibex*, or *bouquetin*.

^h The *mouflon*, or *muffoli*, is found wild in the mountains of Sardinia, and also in Corsica. It has been considered the original stock of the domestic varieties, and by some a distinct species.—P.

TABLE

OF THE PHYSICAL REGIONS OF EUROPE.

Regions.	Countries included.	Physical Characters.	Regions.	Countries included.	Physical Characters.
<p>I. CENTRAL URALIAN REGION. Lat. 51—61. Lon. 67—76.</p>	<p>The east of European Russia, including the Uralian mountains and their branches between 51° and 61°; the basins of the Kama, the Viatka, the Ufa, and the Bielaja; the mountainous districts in the basin of the Ural (western part) as far as the borders of the Caspian steppes; lastly, the eastern bank of the Wolga from the Unschä to the neighbourhood of Saratow. See Regions II. VI. VII.</p>	<p>Elevation of the mountains, from 6 to 8000 feet. Level of the Wolga near Kasan, 580 feet. Frosty east wind. South wind foggy on the mountains, hot and dry in the plains. Mean temperature at Solikamski—1.85. Mercury is often malleable at Catherinenburg, two leagues beyond the Ural. Snow remains six months on the ground at Perm; two months without frost. Heat and drought extreme at Orenburg. The grain and leguminous plants are often frozen near Orenburg. Reindeer; grain in the low valleys; hazel-nut trees on the Kama.</p> <p>The Uralian mountains become gradually lower.</p> <p>Ice along the shores to the 1st of June. Thunder very rare.</p> <p>Variations of wind and temperature.</p> <p>Mean temperature.</p> <p>Mercury is often malleable at Usting-Welicki.</p> <p>The Dwina is frozen from the 1st of November to the 1st of May.</p> <p>Agriculture ceases about the 60th degree.</p> <p>Rein-deer. Fruit shrubs in great numbers.</p> <p>Pine trees cease at 61° or 62°.</p> <p>Plains intersected by small chains of rocks.</p> <p>Mean temperature +4 Petersburg +3.8 Umea +0.7 Abo +4.8 (Reaumur.) Greatest cold at Petersburg—24.5.</p> <p>Frosty weather, 112 days in the year.</p> <p>No snow, 60 days.</p> <p>Rye, barley, &c. throughout the coasts on the Baltic; they do not always ripen in the interior towards Olonetz, at 61°.</p> <p>Wheat ripens frequently at 60° in Finland.</p> <p>The mountains in Norway become lower at 67°.</p> <p>Maritime chain of Lapland, elevation from 3000 to 4000 feet.</p> <p>The other ridge,* from 2000 to 2300 feet.</p> <p>Many lakes continue frozen to the month of June.</p> <p>The frost ceases in the Gulfs of the North Sea about the 10th of May.</p> <p>Mean temperature at Cape North, 0.0.</p> <p>At Vadsø (towards the north-east.)—0.77.</p>	<p>IV. LAPLAND, continued.</p>	<p>See Regions III. and VI.</p>	<p>At Enontekies, +2.8. Mean temperature during the summer at Cape North, +6.3; at Enontekies, +12.7. Barley and oats cultivated in some districts. Pines and firs to 67°. Reindeer; fruit shrubs. Mountains, 8000 feet. Base 3000 —^b General declivity to the south and east. Mean temperature at Stockholm, +5.7; at Christiania, +6; at Trondheim, +4.4. Rainy and foggy climate on the ocean: lowest temperature at Bergen, —12. Climate serene but windy on the Baltic; lowest temperature at Upsal, —22. Grain cultivated throughout the whole region. Fruit trees rare beyond 60°. Pine and fir forests to 66°. Oaks to 60°. Table-land of Waldai, from from 1000 to 1250 feet. Open country. Mean temperature, +4 to 5. Thermometer below zero during 177 days in the year 1791, at Moscow. Short intervals of extreme cold; at Moscow —30. Mercury was malleable, 3d of February, 1803, at Saratow. The Wolga, near Nische-gorod, freezes the 25th of November, and continues frozen till the 5th of April. Idem, near Kasan, from the 1st of November to the 25th of April. The Oka freezes near Orel the 25th of November, and continues frozen until the 25th of March. Rye, barley, &c. Apple and plum trees to 55°. The reindeer disappears. Sandy and argillaceous plains impregnated with salt, higher in the 2d subdivision. Mountains of Taurida, isolated in this region. The Wolga freezes during two months. Lowest temperature at Astrakan, —23.7. [See Upsal.] Highest temperature, +36. Lowest temperature at Odessa, —31, in 1803. Mean temperature, (probably) +7.5. The inundations of the Wolga do not fructify the soil. Trees and different</p>
<p>II. MARITIME URALIAN REGION. Lat. 59—70. Lon. 55—80.</p>	<p>The northeast of European Russia to the east of the Onega, the Scheksna, and the Wolga, including the basins of the Dwina, the Suchona, the Witscheda, the Mezen, the Petschora, and the Ousa, and the western sides of the Uralian mountains beyond the 61st degree of latitude. See Regions I. III. and VI.</p>	<p>Higher districts in the basins of the Duna, the Dnieper, and the Don. All the basin of the Occa and its tributary streams. The western basin of the Wolga, with those of the Mologa and Sura, to Saratow.</p> <p>Limits on the west, the Beresina and the Dnieper; on the south, the steep lands^c from the falls of the Dnieper to Tzaritzin.</p> <p>See Regions I. II. III. VII. VIII. and IX.</p>	<p>V. SCANDINAVIAN REGION. Lat. 55—65. Lon. 23—37.</p>	<p>Scandinavian peninsula to the south of a line drawn from the island of Donnae, 66°, to Umea, 64°, along the river Umea.</p>	<p>Mean temperature during the summer at Stockholm, +5.7; at Christiania, +6; at Trondheim, +4.4. Rainy and foggy climate on the ocean: lowest temperature at Bergen, —12. Climate serene but windy on the Baltic; lowest temperature at Upsal, —22. Grain cultivated throughout the whole region. Fruit trees rare beyond 60°. Pine and fir forests to 66°. Oaks to 60°. Table-land of Waldai, from from 1000 to 1250 feet. Open country. Mean temperature, +4 to 5. Thermometer below zero during 177 days in the year 1791, at Moscow. Short intervals of extreme cold; at Moscow —30. Mercury was malleable, 3d of February, 1803, at Saratow. The Wolga, near Nische-gorod, freezes the 25th of November, and continues frozen till the 5th of April. Idem, near Kasan, from the 1st of November to the 25th of April. The Oka freezes near Orel the 25th of November, and continues frozen until the 25th of March. Rye, barley, &c. Apple and plum trees to 55°. The reindeer disappears. Sandy and argillaceous plains impregnated with salt, higher in the 2d subdivision. Mountains of Taurida, isolated in this region. The Wolga freezes during two months. Lowest temperature at Astrakan, —23.7. [See Upsal.] Highest temperature, +36. Lowest temperature at Odessa, —31, in 1803. Mean temperature, (probably) +7.5. The inundations of the Wolga do not fructify the soil. Trees and different</p>
<p>III. LAKES. Lat. 56—66. Lon. 40—55.</p>	<p>Finland, governments of Petersburg, Olonetz, Novogorod, Pleskow, Livonia, and Esthonia.</p> <p>Limits on the south-east, the table-land of Waldai, and other hills; on the northeast, the river Onega. See Regions II. IV. and VI.</p>	<p>The plain which extends between the base of the Ural mountains and Caucasus, watered by the lower Ural, the lower Wolga, the Kuma, and the Manytch. The same plain forms the lower part of the basins of the Don, the Donetz, and the Dnieper, as far as the Dniester.</p>	<p>VI. CENTRAL RUSSIA. Lat. 51—60. Lon. 50—67.</p>	<p>Subdivisions.</p> <ol style="list-style-type: none"> 1. High country or Norway. 2. Sweden to the north of the lakes Vener, &c. 3. Gothland or Sweden, to the south of the lakes. See Regions IV. and X. 	<p>Mean temperature during the summer at Stockholm, +5.7; at Christiania, +6; at Trondheim, +4.4. Rainy and foggy climate on the ocean: lowest temperature at Bergen, —12. Climate serene but windy on the Baltic; lowest temperature at Upsal, —22. Grain cultivated throughout the whole region. Fruit trees rare beyond 60°. Pine and fir forests to 66°. Oaks to 60°. Table-land of Waldai, from from 1000 to 1250 feet. Open country. Mean temperature, +4 to 5. Thermometer below zero during 177 days in the year 1791, at Moscow. Short intervals of extreme cold; at Moscow —30. Mercury was malleable, 3d of February, 1803, at Saratow. The Wolga, near Nische-gorod, freezes the 25th of November, and continues frozen till the 5th of April. Idem, near Kasan, from the 1st of November to the 25th of April. The Oka freezes near Orel the 25th of November, and continues frozen until the 25th of March. Rye, barley, &c. Apple and plum trees to 55°. The reindeer disappears. Sandy and argillaceous plains impregnated with salt, higher in the 2d subdivision. Mountains of Taurida, isolated in this region. The Wolga freezes during two months. Lowest temperature at Astrakan, —23.7. [See Upsal.] Highest temperature, +36. Lowest temperature at Odessa, —31, in 1803. Mean temperature, (probably) +7.5. The inundations of the Wolga do not fructify the soil. Trees and different</p>
<p>IV. LAPLAND. Lat. 64—72. Lon. 30—58.</p>	<p>Mountainous regions of Lapland. Westro-Bothnia to the river Umea. Nordland in Norway. Norwegian and Russian Lapland as far as the shortest line between the Gulf of Bothnia and the White Sea.</p>	<p>VII. SCYTHIAN PLAINS. Lat. 43—51. Lon. 40—70.</p>	<p>VI. CENTRAL RUSSIA. Lat. 51—60. Lon. 50—67.</p>	<p>See Regions III. and VI.</p>	<p>Mean temperature during the summer at Stockholm, +5.7; at Christiania, +6; at Trondheim, +4.4. Rainy and foggy climate on the ocean: lowest temperature at Bergen, —12. Climate serene but windy on the Baltic; lowest temperature at Upsal, —22. Grain cultivated throughout the whole region. Fruit trees rare beyond 60°. Pine and fir forests to 66°. Oaks to 60°. Table-land of Waldai, from from 1000 to 1250 feet. Open country. Mean temperature, +4 to 5. Thermometer below zero during 177 days in the year 1791, at Moscow. Short intervals of extreme cold; at Moscow —30. Mercury was malleable, 3d of February, 1803, at Saratow. The Wolga, near Nische-gorod, freezes the 25th of November, and continues frozen till the 5th of April. Idem, near Kasan, from the 1st of November to the 25th of April. The Oka freezes near Orel the 25th of November, and continues frozen until the 25th of March. Rye, barley, &c. Apple and plum trees to 55°. The reindeer disappears. Sandy and argillaceous plains impregnated with salt, higher in the 2d subdivision. Mountains of Taurida, isolated in this region. The Wolga freezes during two months. Lowest temperature at Astrakan, —23.7. [See Upsal.] Highest temperature, +36. Lowest temperature at Odessa, —31, in 1803. Mean temperature, (probably) +7.5. The inundations of the Wolga do not fructify the soil. Trees and different</p>

* "Plateau du versant des eaux;" ridge dividing the waters [of the Baltic and Northern Ocean.]—P.

^b "Mountains, 8000 feet high, on a plateau, 3000 feet."

^c "L'escarpement des terres;" the southern declivity of the great central table-land of Russia, towards the low plains on the Euxine and sea of Azof.—P.

Table continued.

Regions.	Countries included.	Physical Characters.
VII. SCYTHIAN PLAINS. <i>continued.</i>	SUBDIVISIONS. 1. Caspian plain. 2. Plain along the Euxine, (<i>Plaine Pontique.</i>) 3. Taurida, forming a separate region.	kinds of grain become more rare as we advance eastwards. Fertile and oozy soil on the banks of the rivers. Horses and oxen; and the camel in the south. Sandy and argillaceous plain, wet and fertile. Level of the banks of the Vistula, (Warsaw,) 588 feet. Ridge of eastern Prussia 600 feet. Division of the waters between the Black Sea and the Baltic, (a low plain.) Volhynia rises in a direction contrary to the acclivity of the Dnieper. Rivers flow between high and steep banks towards the Black Sea. Mean temperature at Warsaw + 9.2; at Wilna + 8.7. Lowest temperature at Warsaw — 15.9. Forests of oak and pine trees as far as the coasts of the Baltic, and the declivity of the Volhynian plain towards the steppes of the Euxine. Many small lakes near the Baltic, within twenty leagues of its shores. Commencement of the vine. ^b Grain. Horses and oxen. Argillaceous plains, bordered by peat-grounds or marshes. Heights of 1200 feet in Jutland, of 600 in Mecklenburg. Every kind of grain. The forests extend to five or ten leagues from the German Sea. Prevailing northwest winds hurtful to vegetation. Mean temperature at Brussels, + 10.5; at the Hague, + 9.8; at Berlin, + 8.2; at Copenhagen, + 7.6. Low temperature common at Brussels, — 10.1; at Franeker, — 14; at Berlin, — 12.6; at Copenhagen, — 11.9. Mountains above 4000 feet in the northwest. Calcareous plains in the south. Lakes in Scotland. <i>Bogs</i> in Ireland. Mean temperature at London, + 10.2 (Reaumur;) at Dublin, + 9.5; at Edinburgh, + 8.8. Mean low temperature at London, — 5.6. Climate every where variable; humid and mild in Ireland; uncertain winters. Grain and forests as in region IX. towards the north; towards the south, as in region XIV. Elevation of the Sudetes about 5000 feet. Carpathians, 8000. Dacian Alps, 9000. Plateau of Saxony, 600 feet; of Bohemia, 1200; of Upper Hungary and Transyl-
VIII. SARMATIAN PLAINS. Lat. 50—58. Lon. 19—32.	Silesia; the countries between the Oder and the Duna; Poland according to its present dimensions; Prussia proper and Lithuania, as far as the division between the Vistula and the Niemen on one side, and the Dnieper and the Dniester on the other; beyond that line, the marshes of Polesia and the plains of Volhynia, Podolia, and Kiow, and the cataracts of the Dnieper. ^a See Regions VI. VII. and XIII.	
IX. CIMBRO-GERMANIC PLAINS. Lat. 50½—57½. Lon. 19—32.	The basin of the Rhine from Coblentz, Lower Belgium, Holland, the whole of Northern Germany to the north of the Hartz Mountains, the countries between the Elbe and the Oder, Jutland and the Danish islands in the Baltic.	
X. BRITISH ISLANDS. Lat. 50—61. Lon. 7—19½.	SUBDIVISIONS. 1. Plain of England. 2. Cambrian mountains. 3. Central hilly region, from Derby to Edinburgh. 4. Caledonian mountains. 5. Ireland. The Faroe islands at 62° lat. may be included.	
XI. HERCYNIO-CARPATHIAN REGION. Lat. 46—52. Lon. 25—44.	The mountains and plateaus of Westerwald opposite Coblentz; those of Hesse, Thuringia, Franconia, Electoral Saxony, the Sudetes, Upper Silesia, Moravia, the Carpathians, and	

^a "To the ridge [*escarpment*] which intersects the Dnieper at the cataracts."

Table continued.

Regions.	Countries included.	Physical Characters.
XI. <i>continued.</i>	a part of Galicia, Upper Hungary, and Transylvania. SUBDIVISIONS. 1. <i>Hercynian region</i> , the mountainous countries of Franconia, Hartz, &c. 2. The <i>Sudetes</i> ; Bohemia, Moravia. 3. The <i>Carpathians</i> ; Upper Hungary. 4. The <i>Dacian mountains</i> , or Transylvania.	vania, 1900. Forests, numerous rivers, few lakes. Low temperature at Lemberg from —22 to 28; at Prague, —17.2, (Reaumur.) Temperature of Prague, + 9.7. The cold increases towards the east. The vine grows in favourable exposures to 51° lat. Oats the only grain on the Carpathians. <i>Pinus cembra</i> and <i>pumilio</i> grow at a greater height on the same mountains than any other shrubs. Branches of the Alps and Carpathians in the first subdivision. Two narrow valleys or passes, the first to the north of Buda, the second near Orsova. Elevation of Vienna, 478 feet, of Semlin, 290. Vast saline and bituminous plains in the first subdivision. Immense marshes on the lower Danube. Mean temperature of Vienna, + 10.3; of Buda, + 10.6; of Galatch in Moldavia, + 8.9. Excessive heat in the plains of Hungary. Severe cold in Bosnia on the northern declivity. Cold winds from Russia in Moldavia. The lower Danube continues frozen a long time. Vines, wheat on the hills, rice and buffaloes in the lower parts of the 2d and 3d sub-divisions. Elevation of the mountains, from 10,000 to upwards of 15,000 feet. Plateaus of Bavaria and Swabia, from 1200 to 1500 feet; of Piedmont, 1000 feet; of Vienne, <i>idem</i> . Plain of Lombardy, 200 feet. Numerous lakes on the north west and south-east of the Alps. Mean temperature of the Alpine region; at Berne, + 9.4; Zurich, + 8.8; Geneva, + 9.6. <i>Idem</i> of the northern sub-Alps; at Ratisbon, + 8.9. <i>Idem</i> of the western sub-Alps; at Dijon, + 11.2; at Vienne, + 12.3; at Marseilles, + 15. <i>Idem</i> of the south-eastern sub-Alps; at Milan, + 13.2. The lagoons of Venice freeze rarely. Productions of all the European climates on the southern declivity, according to the levels. Flora of Lapland on the summits; palm trees near the sea shore. The sub-Alps of Germany are higher, and, being exposed to the north, lie without the proper region of the vine. The summit of the region is an elevated plateau of from 1200 to 1500 feet, crowned with volcanic mountains from 5000 to 6000 feet. The rest of the region consists of plains interspersed with hills; few lakes. Mean temperature at Paris, + 10.6; at Laon,
XII. PLAINS ON THE DANUBE. Lat. 43—48½. Lon. 34—47.	Lower Austria, almost the whole of Hungary, part of Bosnia and Servia, Bulgaria, Walachia, Moldavia, Bessarabia. SUBDIVISIONS. 1. Central plains on the Danube. 2. Plains on the lower Danube. 3. Hills on the southern declivities of the Carpathians. 4. <i>Id.</i> on the northern of Hæmus. 5. <i>Id.</i> on the eastern of the Dacian mountains. See Regions VII. XI. XIII.	
XIII. ALPS. Lat. 43—49. Lon. 20—34.	1. Alps, higher valleys, as Savoy, the Valais, Uri, the Grisons, Tyrol, &c. 2. Sub-Alps of Germany on the north, Berne, Zurich, Upper Swabia, Bavaria, Upper Austria, Stiria. 3. Sub-Alps of Italy on the southeast. All the valley of the Po, of the Adige, and the Piave, &c. 4. Sub-Alps of France on the southwest; the basins of the Saone, the Rhone, the Durance, the Gard, the Herault, &c. ^d	
XIV. MARITIME FRANCE. Lat. 42½—51. Lon. 13—23.	Basins of the Seine, the Loire, and the Garonne, and all the secondary and intermediate rivers.	

^b "No vines"—Vines are cultivated in Silesia.—P.
^d "France Rhodanique."

Table continued.

Regions.	Countries included.	Physical Characters.
XIV continued.	<p>SUBDIVISIONS.</p> <p>1. The Cevennes.</p> <p>2. Basin of the Garonne.</p> <p>3. Basin of the Loire, in the centre.</p> <p>4. Brittany.</p> <p>5. Basin of the Seine.</p> <p>6. Jura and the Vosges.</p>	<p>+ 8.5; at St. Malo, + 12.3; at Nantes, + 12.6; at Bourdeaux, + 13.6; at Clermont, + 10 (elevation 1260 feet.) Mean temperature of the coldest month at Bourdeaux, + 5; at Nantes, + 3.9; at Clermont, - 2.2. The vine passes beyond 49°, but avoids the neighbourhood of the sea. Laurels near Brest. Wheat reaches an elevation of 3000 feet.</p> <p>Height of the mountains for the most part unknown. Snow falls sometimes in the midst of summer on Mount Hæmus, and even in the island of Andros. East wind cool and salubrious. South and southeast winds unwholesome in several places. Olive and orange trees and myrtles to the south of Mount Hæmus. Vines near the sea shore.</p> <p>Different climates in different districts.</p> <p>Constantinople is placed between Taurus and Hæmus, and the winter is colder there than at Venice.</p>
	<p>Mountains of Dalmatia, Macedonia, and Romania. Peninsulas and islands of Greece, including Crete.</p> <p>SUBDIVISIONS.</p> <p>1. Hæmus to the Axisus.</p> <p>2. Albania, including Dalmatia.</p> <p>3. Pindo-Heliconian region.</p> <p>4. Peloponnesus.</p> <p>5. The Cyclades.</p> <p>6. Crete.</p>	
XV. REGION OF MOUNT HÆMUS AND THE ARCHIPELAGO Lat. 35—43. Lon. 35—46.		

Table continued.

Regions.	Countries included.	Physical Characters.
XVI. APPENNINES. Lat. 36—44½. Lon. 25—36.	<p>The state of Genoa, Tuscany, the states of the Church, Naples, Sicily, Malta, Sardinia, Corsica.</p> <p>SUBDIVISIONS.</p> <p>1. The Peninsula [Appennine.]</p> <p>2. Sicily [Etna.]</p> <p>3. Sardinia and Corsica [Anti-Appennine.]</p>	<p>The northern and eastern sides of the Appenines are much colder than the western and southern.</p> <p>Mean temperature of Rome + 15, coldest month + 5.7, nearly the same as at Montpellier. Excessive heat occasioned by the scirocco. Unwholesome exhalations in Sardinia, the Pontine marshes, &c. Vines as in Region XV. Sugar cane in Calabria and Sicily.</p> <p>Mountains only inferior to the Alps. Eternal snow on the Pyrenees, the Sierra Nevada and Pentata, and some mountains in Galicia. Humidity of the northern coasts. Dryness of the central plateau. Salubrity of Valencia and Murcia. Lowest temperature at the base of the Pyrenees, - 6; at Madrid, - 3; at Cadiz, + 7. Highest temperature in the Asturias, + 24; at Madrid, + 27; at Cadiz, + 31. Mean temperature at Lisbon, + 16.5. The yellow fever does not ascend above the level of 600 feet.</p>
	<p>Spain and Portugal.</p> <p>1. Region of the Ebro [Iberia.]</p> <p>2. Idem of the Acterian^a mountains [Cantabria.]</p> <p>3. Idem of the Douro [Duriana.]</p> <p>4. Idem of the central plateau [Celtiberia.]</p> <p>5. Idem of the lower Tagus [Lusitania.]</p> <p>6. Idem of the Guadalquivir [Bætica.]</p>	
XVII. SPANISH PENINSULA. Lat. 36—43½. Lon. 8—21.		

^a Asturian?

TABLE

OF MEAN TEMPERATURES, ACCORDING TO THE CENTIGRADE THERMOMETER.

	Upsala.	Copenhagen.	London.	Paris.	Geneva.	Zurich.	Buda.	Rome.	Palermo.
January	- 5.49	- 1.54	+ 1.92	+ 2.99	+ 1.16	- 3.17	- 2.69	+ 7.18	+ 10.78
February	- 2.98	- 2.67	3.27	4.01	2.87	0.94	+ 0.65	8.18	10.78
March	- 1.48	- 1.11	5.95	6.14	5.86	4.51	+ 3.64	10.71	12.11
April	+ 4.54	+ 5.89	7.80	10.46	9.74	7.58	9.63	13.71	14.51
May	+ 9.55	11.63	11.95	13.60	16.75	15.30	18.37	18.11	17.71
June	14.54	16.80	15.16	16.64	17.06	16.35	20.19	21.58	20.48
July	17.07	18.30	16.66	17.98	17.72	18.68	21.82	23.18	22.38
August	15.75	16.68	16.46	17.56	14.70	18.43	22.01	22.88	23.18
September	10.97	14.28	13.54	15.10	10.85	14.14	16.77	20.07	21.57
October	6.03	8.65	9.09	10.03	18.01	9.60	11.01	16.77	19.77
November	0.08	3.28	4.99	6.18	5.03	3.58	4.69	12.07	15.57
December	- 3.95	- 1.20	2.57	3.77	2.22	- 1.21	0.50	8.48	12.30
Winter	- 4.14	- 1.80	+ 2.58	+ 3.26	+ 2.08	- 1.15	- 0.85	+ 7.95	+ 11.31
Spring	+ 4.21	+ 5.47	8.57	10.07	9.78	+ 9.13	+ 10.55	14.18	14.78
Summer	15.79	17.26	16.09	17.39	17.16	17.82	21.34	22.55	22.02
Autumn	5.69	8.73	9.21	10.44	10.12	9.10	10.82	16.30	18.97
Annual	+ 5.39	+ 7.42	+ 9.12	+ 10.29	+ 9.79	+ 8.73	+ 10.45	+ 15.24	+ 16.77

BOOK XCVI.

EUROPE.—INTRODUCTION.

Remarks on the Political Geography of Europe—Nations, Languages, Religion, Political Divisions, Governments, Population, &c.

IT is not our design to enter into discussions concerning the origin of European states;^a such a subject might require a separate work. Many learned and ingenious theories have been advanced on it; but all of them are involved in difficulties which cannot now be solved; the proofs on which they depend have long since perished. Some light may perhaps be thrown on these discussions in our accounts of particular countries, but it is sufficient at present to relate succinctly such facts as appear least liable to doubt.^b

We must keep in view some principles that have been already stated in our observations on the history of geography.^c The names given to European states^a by the Greeks and the Romans are as vague and insignificant as the Indian names collected by European travellers, or the Mogul terms of the orientalisists. Ancient languages are the only authentic sources from which we can expect to derive any knowledge on such subjects; the names of rivers and mountains may supply us with information, if the epochs at which these names were fixed can be ascertained. But it is vain to suppose that all the elements of civilization, or the movements of states, emanated from one common centre; the migrations of different people are not to be believed unless they be established by positive proofs, and even then not beyond the limits which result from such evidence. Population has not been much affected by the removal of Asiatic hordes, and languages still less. The migrations of European states may be compared to the expeditions of conquering armies, by which dialects have been modified and different families or tribes raised into power. It is needless to seek in Asia or in Ethiopia the obscure origin of different nations, and to disregard facts better authenticated and within our reach. It may be shown that, about the time in which the ancient Greeks were making advances in civilization, its progress was not confined to their country, but extended almost over the whole of Europe, particularly among the Turdetani, the Celts, the Scandinavians, and the Etruscans. Many ancient nations, and more especially the Etruscans, the Thracians, and Scythians, consisted of ruling tribes, and under them were servile tribes or vassals, of which the origin was in many instances very different. The language of the priests, confined at first to the temples, was the means of forming and improving the barbarous dialects of ancient Europe; it is well known that the priests or sacerdotal tribes communicated with one another at great distances. In those ages, concerning which we can derive little informa-

tion from history, there existed many small but powerful tribes or families, often at variance with each other, hostile or friendly according to their wants or caprice. Some monuments of that period are now inexplicable, as the relations between roots, names, and grammatical forms. These obscure data are not unworthy of attention; to explain them fully is a hopeless task.

European languages may be divided into two great classes; the first consists of those which resemble one another, and have all some affinity with the Sanscrit and Persian; the second comprises those in which such resemblance does not exist, or at all events is faint and indistinct. In the first class may be distinguished the Greek and partly the Latin, the Slavonic and its branches, the German, and the Scandinavian: in the second, the Finnic, the Celtic, and the Basque or Biscayan. It is impossible to determine whether such radical differences are to be attributed to two different Asiatic invasions, or to two separate periods of civilization.

Ten distinct races exist still in Europe, but the most ancient are on the whole the least numerous; thus in a forest, the oldest trees perish, while the younger extend afar their wide spreading branches. The time may perhaps come when these ten races may be reduced to five or six.

The Greeks, of whom the Pelasgi were a very ancient branch, after having peopled with their colonies the most of the coasts on the Mediterranean, now exist only in some provinces of Turkey, chiefly in the Archipelago and the Peloponnesus. The modern Greek language is sprung from the ancient; although changed by slavery and misfortune, the barbarous Turks are not insensible to its beauties.

The Albanians are the descendants of the Illyrians, mingled formerly with the Pelasgic Greeks, and at a later period with the modern; enough of their ancient language remains to enable us to discover its European character, and its connexion with the German and Slavonic. No trace is left of the ancient people that are supposed to have inhabited Thrace and the countries adjacent to the Danube; they were probably composed of different races, as the Phrygian, the Slavonic, the Celtic, and the Pelasgic; perhaps too what is strictly called the Thracian language, was the common source of the Phrygian, the Greek, the Illyrian, and even the Dacian or *Dake*. It is in Thrace, near Mount Hæmus, and on the Lower Danube, that we can discover the earliest origin of European states; but these indications disappear if we traverse Asia Minor, or travel by the north round the Euxine Sea.

The Turks, the modern rulers of the Greeks, belong to

^a "Peoples," nations, considered as to their origin, not their political state.—P.

^b The reader may examine the table at the end of this book.

^c In the original, the history of geography forms the commencement of the present work.—P.

the same family as the Tartars, who are scattered throughout Russia from the Crimea to Kasan, and one of whose colonies is established in Lithuania. That people, foreign to Europe, or who only occupied in ancient times the Uralian confines, are now domiciled in our peninsula, and probably fixed in it for ages; but they have become incorporated with the Greek races, and with the ancient nations of Asia Minor and Thrace. The Turcomans, of whom a branch is settled in Macedonia, have preserved incorrupted their Asiatic origin.

Two great races have probably existed in the north-east of Europe for some thousand years. The vain Greeks and proud Romans despised the obscure names of Slavonians and Finns, (*Slavi* and *Finni*;) ^a but these populous tribes have occupied from the earliest dawn of history all the countries comprehended under the vague and chimerical names of Scythia and Sarmatia. Almost all the topographical names of these countries are derived from the Slavonic and Finnic; a very small number owe their origin to the short empires of the Scythians, the Sarmatians, the Ostrogoths, and the Huns, the successive conquerors and rulers of these immense plains. It is probable that a Scythian nation, sprung from the Medes, ^b ruled over Finns and Slavonians, who formed the agricultural and pastoral tribes. The Sarmatians appear to have been a horde of Mongols or Tartars, who mixed with the Scythians and their vassals; the Huns were another horde of the same people; both the one and the other came from the banks of the Wolga and the shores of the Caspian Sea. It is certain that, at the time in which they appeared in these countries, the banks of the Vistula and the Dnieper were peopled by Slavonic and Finnic tribes.

The Slavonic nations are divided, according to their dialects, into three branches; first, the eastern Slavi, including the Russians, a people descended from the Roxelans, or Roxolani, ^c the Slavi and Scandinavians, the *Rusniacs* in Galicia, the Slavi on the Danube or the Servians, the Slavonians, the Croatians and others, and the Wends of Austria; ^d secondly, the western Slavi, or the Poles, Bohemians, Hungarian Slavi, ^e and the Sorabians or Serbs of Lusatia; thirdly, the northern Slavi or the Venedi of the Romans, the Wends of the ancient Scandinavians, a very numerous branch, earlier civilized, but at the same time earlier intermingled with other races than the two former. This same branch comprehends the remains of the German Wends, or the Polabians, the Obotrites and the Rugians, long since confounded with their conquerors the Germans: it also comprehends the Pomeranians, including the Kassubians, who were subdued by the Poles; the ancient Prussians or Prutzi, exterminated or reduced to disgraceful slavery by their Teutonic conquerors; ^f and lastly, the Lithuanians or Lettonians, the only branch which has retained some traces of its ancient language, although mixed with the Scandinavian and Finnic. ^g

^a According to Jornandes and Procopius, the Slavi derived their name from Slava, a Sarmatian word, which signifies glory or renown.* Thus the Slavi were the glorious or renowned; but the signification of Slavi has been strangely altered in the lapse of ages. The English word slave, is derived from Slavonian; the French, *esclave*, from Slavonian or *Esclavon*; and the Italian, *schiaivo*, from the same source.

* From *slavo*, language.—*Adelung*.

^b "The royal Scythians, a tribe of Medes."

^c Ptolemy places the Roxolani on the banks of the Tanais. Jornandes, de Rebus Goth. c. xxiv. calls them *gens infuta*.

^d "Les soi-disant Windes d'Autriche," the self-styled *Windes* of Austria—the southern Wends of Adelung, inhabiting Carniola, Carinthia, Stiria, &c., but now intermingled with the German population.—P.

^e The Slowacks.

^f "The Teutonic Knights."

^g Adelung considers the Cassubian as a dialect of the Polish, the northern

The Walachians in the ancient Dacia and the adjacent countries, are the descendants of the Getæ, the Slavi and the Romans; their language resembles the Latin.

The Bulgarians are a Tartar tribe, that migrated from the neighbourhood of Kasan, where perhaps it ruled over Finnish vassa's; after having reached Mount Hæmus, they mingled with the Slavi on the Danube, and partly adopted their language.

The Finns, whom Tacitus designates under the name of Fenni, and Strabo under that of Zoumi, ^h wandered probably from time immemorial in the plains of eastern Europe. Some of their tribes having mixed with other nations, were included by the Greeks among the European Scythians. Their descendants were subdued and driven to the north and the east by the numerous hordes of Slavonians. It is probable that the branches of the Finnic race are the Laplanders, who are also perhaps connected with the Huns; the proper Finns, in Finland; the Esthonians and the *Lives* ⁱ or ancient Livonians; the Permians or Bjarmians, incorporated with the Scandinavians, particularly the Norwegians, who founded a powerful state among them in the tenth century; lastly, the Hungarians or Magyars, who were composed of Finnish and Turkish tribes, governed by Persians or Bucharians. Such are considered the ramifications of the Finnic race, or as it is called in Russian, the *Tchudish*. ^k There are without doubt many reasons that may induce some to regard the Hungarians as a separate branch, or at all events a mixed, though ancient people.

The Samoiedes, the Siriaines, the Tcheremisses and the Morduates, appear to have been wandering hordes that migrated from Asia, and being subdued at different times by the Bulgarians, the Hungarians, and Permians, their language was gradually changed, so that their origin is now uncertain.

The Teutonic nations, of which the most important are the Germans, the Scandinavians, and the English, are situated to the west of the Slavonians and Finns, in the north-western and central regions of Europe. The Germans, on account of their different dialects, may be divided into two classes; the inhabitants of the mountains on the south, and those of the plains on the north. The *high German*, ^l and its harsh and guttural dialects, are spoken in Switzerland, Swabia, Alsace, Bavaria, the Austrian States, Silesia and Transylvania. The softer dialects, or the low German, may be again divided into the Dutch and Flemish, or the remains of the ancient Belgian; the Frisic which extended from the *Zuider-zee* to Sleswick; and the *low or old Saxon*, ^m which was spoken from Westphalia and Holstein to eastern Prussia. We ought, lastly, to mention as holding an intermediate place between these two German dialects, which are almost as different from each other as the Italian and the French, the Saxon properly so called, together with the language of Franconia, and that of the higher orders in Livonia and

Wends as a separate branch of the western Slavi, and the ancient Prussia and the Lettonian as belonging to a distinct family of languages, the Lettish or German-Slavon.—P.

^h "Suome is the proper name in their own language." They call themselves *Suomalaine*, from *suoma*, a swamp.—*Adelung*.—P.

ⁱ *Liven*, *Lieven*, German.

^k "Tchoude."

^l High German (*Hoch Deutsch*) is properly the cultivated written German. The southern dialects of the common people are called by Adelung the Upper Dutch (*Ober Deutsch*), as the northern dialects are called the Low Dutch (*Nieder Deutsch*). The term Low Dutch is generally confined with us to the language of Holland, but it properly extends to all the Teutonic dialects in the countries below the mountains of central Germany.—P.

^m Called by Adelung, Flat Dutch (*Platt Deutsch*).

Esthonia; in the form of the words, they resemble the *high* German, and the *low* in the softness of their pronunciation.^a

The Scandinavian nations, or the Swedes, Goths, Norwegians, Danes, and Jutlanders, form a distinct race from the German nations, and were separated from them at a remote period. Still, however, there is some resemblance between them and the Dutch, the Frieslanders and the low Saxons. The remains of the ancient Scandinavian, as it was spoken in the ninth century, are retained in the Dalecarlian, the old Norwegian of the vallies of Dofre, the Icelandic, the dialect of the Faroe islands, and the Norse, the language of the Shetland islanders.^b The two modern languages or rather dialects, the Swedish and the Danish, are both of them branches of the ancient Scandinavian; but in the progress of civilization they have lost much of their strength, and even of their copiousness. A third dialect, that of Jutland, retains some traces of the old Anglo-Saxon, incorporated with the ancient Scandinavian.

The English and Lowland Scotch, are sprung from the Belgians, Saxons, Anglo-Saxons, Jutlanders, and Scandinavians. Their different dialects, united and modified, formed the old English or the *Anglo-Dano-Saxon*, a language which was corrupted by the sudden introduction of barbarous Latin and barbarous French at the Norman invasion; but its ancient character was not thus destroyed; it was afterwards slowly but gradually improved. It must be confessed, however, that the dialects spoken in Suffolk, Yorkshire, and in the low counties of Scotland, bear a stronger resemblance than the English to the Teutonic tongues.

The languages derived from the Latin^c are now spoken in the west and the south of Europe; but it is necessary to make, in connexion with the subject, some remarks on certain nations that were oppressed and subdued. No distinct trace remains of the Etruscans, the Ausonians, the Osci, and other indigenous states, or such at least as were anciently settled in Italy. The names of the Celts and Iberians have also disappeared in France, Spain, and Britain; but under other denominations we may discover the descendants of those great and ancient nations.

The Basques, confined to the western base of the Pyrenees, still retain one of the most original languages in our part of the world; it has been proved that it is a branch of the Iberian, which was spoken in eastern and southern Spain, and was common also in Aquitanian Gaul.

The Celts were one of the primitive European races, most widely scattered in different countries. We may learn from the earliest histories of Europe, that they were settled at a remote epoch along the Alps and in the whole of Gaul, from which they migrated at a very earlier period, into the British islands, and the central and western regions of Spain; at a later period they inundated Italy, Thrace, and Asia Minor. The Hibernians are an old branch of the same people; and according to some authors, the highlanders of Scotland are a colony of the native Irish. The *Erse* or *Gaelic* is

^a The dialects of Upper Saxony, (the proper Saxon, spoken purest at Dresden,) of Franconia, Hesse, Thuringia, and, in general, of the hilly and mountainous country north of the Maine, are called, by Adelung, the Middle Dutch (*Mittel Deutsch*), as intermediate between the Upper and the Low Dutch. The proper Saxon is the parent of the High Dutch, or written language.—P.

^b The *Norse* is the old Norwegian, the parent of all the Scandinavian dialects, and the same with the old Icelandic, or the language of the Edda. It was formerly spoken in the Orkney and Shetland islands; but the language of those islands at present differs very little from English.—P.

^c "Langues Romaniques," Roman or Romance languages.

^d "The ancient Belgians, so far as history informs us, were a mixed people of Celts and Germans; but it is probable that they derived their ori-

gin from the Germans." Their language is called by Adelung, the German-Celtic.—P.

the only authentic monument of the Celtic language; but it may be readily admitted that a nation so widely extended must have been incorporated with many states whose dialects are at present extinct. Belgium was at one period inhabited by Celts and Germans, but it may be proved that the earlier inhabitants were of Celtic origin;^d the Belgians having conquered part of England and Ireland, mingled with the native Celts, and were afterwards driven by the Anglo-Saxons into Wales, Cumberland, and Cornwall; from these districts, a part of them returned to the continent, and peopled lower Brittany. The Welsh, as it is still spoken, is derived from the Belgian, and is very different from the pure Celtic; and the more modern dialect of lower Brittany is still further removed from it. The Welch call their language the *Kumraigh* or the *Kymri*, whence the Latin authors of the middle ages denominated the people *Cambrians*; some geographical writers have incorrectly styled them *Cimbri*.

Such are the three ancient indigenous races of western Europe. The language of the Romans, particularly the popular dialect, or *Romana rustica*, came gradually into use in different countries; it was thus mixed with the native languages, and gave rise to provincial idioms; the purer Latin was spoken in the towns and churches. The irruption of the northern nations, all of them, or almost all of them of Teutonic origin, introduced new confusion and new idioms^e into the Latino-Gallic and Latino-Iberian dialects; the language of the Troubadours,^f of which the seeds had been sown in a very remote age, appeared about the same time in all western Europe. From it emanated the Italian, including the Lombard, Venetian and Sicilian dialects; also the *Provençal*, the *Langue d'Oc* or Occitanian,^g the Limousin and the Catalan, which are all directly derived from the ancient *Romance*; and the French, of which some of the dialects, as the Walloon and that of Picardy, must have existed for many centuries before the French name was known. To the same source must be attributed the modern Spanish or the Castilian, and the Galician, the stock of the Portuguese.

We may conclude from this imperfect account of the European languages, that the three most populous races are the Romano-Celtic in the south and west; the Teutonic in the centre, the north and north-west; and the Slavonic in the east.

The Greek, the Albanian, the Turkish, and the Finnic languages in the east; the Basque, the Celtic or *Erse*, and the Welsh or *Kymric*, however interesting to the philologist, are considered secondary by the political arithmetician. These seven languages are not spoken by more than twenty-five or twenty-seven millions in Europe, whilst the three great races comprise a European population of more than a hundred and seventy-five millions.

Europe reckons among its inhabitants the descendants of Arabians; they are distinguished in the island of Candia by the

gin from the Germans." Their language is called by Adelung, the German-Celtic.—P.

^e "Particularly a new grammar"—the neglect of inflexions in forming cases, tenses, &c., and the substitution of prepositions and auxiliaries.—P.

^f "The Romance language." This term here includes all the languages of southwestern Europe, derived from the Latin. The language of the Troubadours was properly the Provençal and its kindred dialects.—P.

^g The ancient Occitania included Languedoc, or, according to some writers, all the provinces beyond the Loire. "Quidam," says Dominiel, "Occitaniam, alii provinciam lingue Occitane vocitant. Hæc autem divisio Franciæ facta est duas in linguas, quod Vascones, Gothi sive Septimani, Provinciales, Delphinates aliique lingue totius populi, præcipue Gothi pro ita utique oc dicere consueverunt; id est hoc. Cæteri Franciæ incolæ oui."

name of *Abadiotes*, and are confounded with the natives in the south of Spain. There are also two tribes of Kalmucs, who lead a wandering life between the Wolga and the Don. We may likewise mention the Jews that are dispersed throughout Europe, the Zigeunes or Gypsies, an ancient Indian caste, and other tribes of the same sort that are treated with greater or less severity.

Christianity, in its various forms, is spread almost over the whole of Europe. The Greek, or eastern church, which owes its origin to the ancient church of the eastern empire, prevails still in Greece, and in part of Albania and Bulgaria, in Servia, Slavonia, Walachia, Moldavia and Russia.^a The number of members belonging to it in Europe amounts to fifty millions. The Latin church, or, as it has been styled, the Catholic, is established in the south, the west, and in some central countries of Europe. Spain, Portugal, Italy, nine tenths of France, four fifths of Ireland, the low countries which belonged formerly to Austria, the half of Germany and Switzerland, and three fourths of Hungary and Poland, submit to the dogmas of the Roman church, and acknowledge the authority of the pope or sovereign pontiff. There are some members of the same church in England, in Holland, and in Turkey; its sway extends over 98 or 99 millions of Europeans. The protestant countries of our continent are those in the north-west and north; that church, in conformity with its principles of liberty, is divided into different sects, of which the Lutheran predominates in the two Saxonies, Wirtemberg, Hesse, and other provinces of Germany, in the whole of Scandinavia, in the Baltic provinces of Russia, and in Prussia. Calvinism or Presbyterianism extends over Switzerland, western Germany, Holland, and Scotland. The Anglican church is almost exclusively confined to England; but its oppression is severely felt in Ireland.^b There are also reformed churches in France, Hungary, Transylvania, and in the vallies of Piedmont. The total number of Protestants in Europe is not much more than 43 or 44 millions. We may mention, in addition to these three great ecclesiastical divisions of Europe, some smaller and distinct sects, as the Socinians in Transylvania, the *Quakers* in England, the Anabaptists in Holland, and the Armenians in Turkey; the Moravian brothers, or the Herrenhutters, cannot be ranked amongst them, for they are only distinguished from the Lutherans by their rules or mode of discipline.

The Mahometans in Europe may amount to four or five millions; they are chiefly composed of Turks, Tartars, and Bosnians. The confines of our continent in the neighbourhood of Asia are inhabited by idolaters; their number, if we include the Laplanders, the Samoiedes, the Tcheremisces, the Woguls, the Kalmucs, and three or four other wandering tribes, may be equal to half a million. The Jews are scattered in every country of Europe, except Norway and Spain; but they are only numerous in Poland, Turkey, Germany, Holland, and Alsace; their total number, according to the highest calculation, is not more than three millions.

The European governments are now very different from what they were thirty years ago. Flourishing republics, such as Holland, Venice, Genoa, and Ragusa; a Germanic empire made up of more than three hundred small feudal, municipal or ecclesiastical states; a sovereign, military, and

religious order, that of the Knights of Malta or St. John of Jerusalem, and a great elective monarchy,^c have all of them disappeared during the revolutions that happened within that short but eventful period. European governments may be divided into two sorts; first, such as are governed by absolute princes, according to fixed laws, and a system of taxation seldom subject to change; secondly, such as are governed by a limited monarchy, and by representative assemblies, having the power of enacting laws and regulating taxation. The first are most numerous in the south and in the east of Europe, the second in the west and the north. Of the former we may mention Russia, Austria, Naples, and Spain; of the latter, France, the Low Countries, Great Britain and Ireland, Sweden and Norway. The two kinds are mixed in the central countries; Sardina, the States of the Church, Tuscany, Electoral Hesse and Denmark, are absolute monarchies; Bavaria, Wirtemberg, Baden, Hanover, and Saxony, are constitutional states. The kingdoms of Hungary and Poland, although attached to absolute monarchies, enjoy the advantages of a representative government; by public treaties and the sacred word of kings, national representatives are guaranteed to every part of the Germanic confederacy.

Thus it appears that limited monarchy is the most common form of government in Europe; the exceptions to it are not many; the Ottoman empire is the only real despotic state in our quarter of the world, unless indeed we add, with a late traveller, the small principality of Monaco. The Helvetic Confederation, on the other hand, forms the only independent republic;^d for the four free towns of Cracow, Lubeck, Hamburg and Frankfort, and the municipality of San Marino, acknowledge the protection of different powers.

It is not easy to determine the preponderance of particular nations in Europe; France, England, Russia, Austria and Prussia are at present denominated the five great powers; but the last is much inferior to any of the rest in the number of its subjects, and in the extent of its revenues and resources. Of these five kingdoms, the European population amounts to 140 millions; a *perpetual alliance* has been formed by some of them; the avowed object of that great league is to maintain inviolable certain constitutions and dynasties, and also the present established forms of the Christian religion. The world is still ignorant of the principles, the deliberations and reciprocal guarantees of an alliance which is to supersede the famous system of the balance of power.

Geography, however, may establish independently of human conventions, some physical relations between those portions of territory that are denominated states. We shall indicate such as appear to us evident from an examination of the map. Russia encroaches on Turkey, Austria, Prussia and Sweden; all these countries may be thus exposed to formidable attacks, but Prussia more so than any of the rest; the range of Hæmus and the Carpathian chain protect Constantinople and Vienna. Scandinavia, united to Denmark, might, from its position and the resources of its inhabitants, resist the invasions of a Russian army. England or France might successfully oppose Russia; the one by entering into an alliance with Turkey and the Scandinavians, could confine the Russian navy and its commerce to inland seas; the other might support Austria or assist Prus-

^a "It is the predominant religion of the Greeks, part of the Albanians and Bulgarians, the Servians, the Slavonians, the Rascians (Raitzes) in Hungary, the Walachians, the Moldavians, and the Russians."

^b It is the established religion of England, Wales, and Ireland.

^c Poland.

^d It must be confessed that the independence of Switzerland is merely nominal. There is no need to prove that melancholy fact; it has been already done by a hundred Italian and Austrian exiles.

sia. Were the German confederacy really united with Austria and Prussia, it might concentrate against its most formidable enemy the immense resources of the German nations. If we consider the secondary German States as so many small but independent powers, and it is equally the interest and the wish of the inhabitants to secure their independence, they will form a neutral country between Austria and France. The disjunction between the last two kingdoms would be complete, if Switzerland and Sardina were better organized. Masters of the most important military positions in central Europe, the inhabitants of the minor states must either derive great benefit from such advantages, or suffer their country to be the theatre of foreign wars. France has few or no natural advantages which can facilitate its invasions; Austria, on the contrary, commands from the Upper Tyrol and the Valteline several entrances into Bavaria and Switzerland. The Austrian empire having arrived at its natural limits in Transylvania, may still wish to add Bosnia to its dominions, but it is naturally the ally, not the enemy, of the Ottomans. The same power commands the Adriatic and the Po, and rules over the finest portion of Italy; for that reason, Austria has ever been most hostile to Italian independence. France, confined within its ancient limits, must remain at peace with the neighbouring states; if the line of fortifications at present building in the Low Countries be a barrier against the attacks of the French, the frontiers of every other country are sufficiently strong to resist their aggressions; on the other hand, although Prussia has extended its territories into Lorraine, France has not much to fear from any of its neighbours. The small number of French sea ports, the tides which limit their utility, their great distance from one another, and their situation on two different seas, are likely to check the naval ambition of the French. If Spain and Portugal were united by better institutions, they might defy every foreign invasion; had Providence intended to secure to humanity many ages of peace, such positions as those in Spain and Portugal had been more numerous on our globe.

We may conclude, from a view of the Map, that Russia occupies more than a half of the superficies of Europe, and possesses more than a fourth part of its population.^a There are, beyond the limits of that vast empire, twelve millions of Slavonians and three millions of Greeks, who, exclusively of the policy of the Russians, are attached to them, from the fact, that they either speak the same language, or are devoted to the same worship. The subjects of other European empires are too widely scattered, or so different in their habits and pursuits, that it is in vain to form from such elements a national character. What legislator would attempt to unite under the same laws, the vine dresser on the banks of the Moselle, and the fisherman on the shores of the Baltic! The language of both is however the same. It is difficult to imagine men more dissimilar than the Hungarians who came from the Uralian mountains, and the Italians, the Germans, or the Slavonians. What resemblance can be discovered between the Turk and the Greek, between the rude barbarian and the descendants of the most intellectual people? Although other countries are better situated, still many of the provinces in France and in Spain are neglected from the effects of a complicated and injudicious administration. Some of the great empires may possess in time

the whole of Europe, or terminate in a universal monarchy after the Roman or Chinese fashion. If providence remove that danger, the most formidable to the progress of civilization, it may perhaps reserve for us ages of war, migrations, and revolutions, which after much bloodshed may bring about freedom, patriotism, and national industry.

Population forms one of the elements in the strength of states, but the political value of men varies greatly in the ratio of their concentration, their intelligence and courage. The following are some of the facts connected with that branch of political geography.

The actual population of Europe is at least 200,000,000, and it is not likely to be overrated at 205 millions; that number, which forms probably a fourth part of the human race, is very unequally distributed in our part of the world, and the inequality does not follow a constant progression from north to south. Some of the results derived from the correct and valuable tables of M. Balbi,^b may be indicated.

	<i>Inhabitants.</i>
Sweden and Norway, per square league, - - -	82
Russia, - - - - -	161
Denmark, - - - - -	616
Prussia, (all the monarchy of) - - - - -	792
England, - - - - -	1457
Low Countries, - - - - -	1829
Saxony, (kingdom of) - - - - -	1252
Bavaria, - - - - -	968
Wirtemberg, - - - - -	1502
Switzerland, - - - - -	783
France, - - - - -	1063
Hungary, - - - - -	750
Lombardo-Venetian kingdom, - - - - -	1711
Sardinia, (States of) - - - - -	1122 (1085)
Lucca, (Dutchy of) - - - - -	2509
Tuscany, - - - - -	836 (931)
States of the Church, - - - - -	1043
Naples and Sicily, - - - - -	747
Portugal, - - - - -	892 ^c
Spain, - - - - -	641
Ionian Islands, - - - - -	1770
Turkey, - - - - -	324

It is in the centre of Europe that the population is greatest, and it is in the same part of the continent that states are best governed; on that account it has been said, and perhaps not unjustly, that mankind increases under good governments. Some exceptions, however, may be observed; but they depend on physical and other causes. Extensive countries, which include great and not very fruitful provinces, are necessarily less populous than small and fertile states. Thus the number of inhabitants in Portugal must be proportionably greater than in Spain, on the supposition that there is not much difference in the governments of these two kingdoms. Tuscany, which is infinitely better governed than the Roman States, is not however so well peopled; but the lands in the territory of Bologna, in Romagna, and the March of Ancona, may be compared as to their fertility and cultivation to the plains of Lombardy. The extent of cultivated land in Switzerland and Norway is confined by mountainous chains; if allowance be made for that circumstance, these states must be considered very populous. History may enable us to discover some of the causes which affect population in particular countries; there are not more, for instance, than 750 inhabitants to the square league in Hungary; but, in Galicia or the mountainous part of Poland, the number amounts to 2600; one cause of so great a difference is that the districts in the neighbourhood of Lemberg and Cracow

^a The population of Europe is estimated in this geography at 200 millions, and that of European Russia is stated at 47,660,500.

^b See the tables at the end of the work.

^c This, in the original, is only 446, (probably an error.) In Rees' Cyclop. the population is 67 to a sq. mile, or 603 to a sq. league.—(Doetticher.) In the Ed. Encyc. 90 to a sq. mile, or 810 to a sq. league.—P.

were much less infested by the Huns, Turks and Tartars. The increase of population is retarded in Turkey by the plague; were it not for that cause, it might be considerable. An epidemic disease of the same kind depopulated in the year 1340, the north of Europe, the native country of so many warlike hordes.

It may excite our surprise, that the wretched and oppressed inhabitants of some countries multiply their species with so extraordinary rapidity; population in Ireland has increased in a greater ratio than in Scotland. An intelligent man dreads poverty, the attendant of a numerous offspring; a savage or a slave has no fears for the morrow.^a

It has been generally observed that the means of subsistence on islands and in the neighbourhood of coasts are greater than in inland countries; thus in Denmark, the islands of Arroe and Zealand, the peninsula of Eyderstedt and Dithmarsh are as thickly peopled as England, the Low Countries, or Lombardy; Jutland, on the contrary, is not more populous than southern Sweden. The same, or a greater difference, exists between the maritime districts of France and Spain, and the central provinces of Berri and Castille. It has been found that the number of inhabitants in the Spanish provinces on the sea coasts is 904 to the square league,^b and that the number in the interior does not exceed 507.^c But this general rule is subject to many exceptions. Wirtemberg, a central and not very fertile country, which has only enjoyed the blessings of a good government for a short period, has become so populous that annual migrations are almost indispensable. Corsica, Sardinia, and even Sicily, are not so well peopled as Italy.

The most remarkable exception to this rule may be discovered in Russia; its population is concentrated in the inland provinces; in some of them the number is as 400, in others as 900 to the square league; but in the provinces on the Baltic it varies between 80 and 300, and in those on the White and Black Seas it descends to 40, and in some places to 2. Can the cause of this phenomenon be traced in the history of these nations, or can it be supposed that the Slavonic race is more prolific than the Finnic and the Tartar? The last hypothesis appears very probable; those countries are most likely to be populous, the inhabitants of which are thoughtless, social, improvident and regardless of intellectual enjoyment; and a resemblance in these qualities is discernible between the Slavonians, especially the Russians, and the Celtic nations, particularly the Irish.

Whatever be the causes on which these phenomena depend, the mean annual increase of the whole European population cannot, according to the lowest estimation, be less than a million, so that before the year 1900 it may amount to three hundred millions. The augmentation is more rapid in the north than in the centre, the south or the west. Russia, with a population of 58 millions, adds to it annually, five or six hundred thousand. It is supposed that there are thirty millions of inhabitants in France, but the yearly increase is not more than two hundred thousand. The population of Austria amounts to twenty-nine millions, and its yearly increase is the same as that of France. Italy and Spain remain almost stationary; Turkey appears to be retrograde.

It has been feared lest the population of Europe become so great before the lapse of no very distant period that subsistence or even sufficient space may be wanting for its in-

habitants; but it is probable that several ages must elapse before such an evil can excite serious alarm. The soil of Europe might afford enough of food for a thousand millions of inhabitants; on the other hand, it cannot be doubted that in some districts, as in a province or a kingdom, the means of subsistence may be inadequate to the population; thus the necessity of emigration is felt in Wirtemberg and in Switzerland. If the population of Norway were doubled, it might amount to three millions; in that case it might be impossible to raise in Norway, or to receive in exchange for its produce, a quantity of food sufficient for the wants of its inhabitants; but there are many countries to which they could migrate. The following calculations may throw some light on the subject.

If the whole of Italy were as well peopled as Lombardy, it might contain twenty-six millions of individuals, and the duchy of Lucca is, in proportion to its size, more populous than Lombardy. If all Spain were peopled in the same manner as the district of Guipuzcoa, or in other words, in the ratio of 2009 to the square *legua*, its inhabitants would amount to 30,146,000, a number nearly three times as great as its present population. Were the same country only as populous as the Asturias, or as 1180 to the square *legua*, and the Asturias are not very well cultivated, the total number of individuals would be equal to 17,735,900. Portugal is much less than Spain, and, throughout its whole extent nearly of equal fertility; Alentejo, one of its provinces, contains only 431 inhabitants to the square league; Entre-Douro e Minho contains 2700. If the whole kingdom were peopled like the first, the number of inhabitants would not exceed 1,481,533; if it were peopled like the second, they might amount to 10,707,813. The actual population is not more than three millions, but it might, without much inconvenience, be increased to six.

To believe, however, that the redundant inhabitants of one country can pass quietly into another, presupposes a degree of wisdom as well as union among mankind, which we are not entitled to expect. It is evident, therefore, that the increase of the human race in the north may occasion at last a new migration of people to the south, an event which, in the course of time, is very likely to happen. The natives of northern states are more intelligent and enterprising, and not unwilling to quit their rude climates for those fine southern countries, which deserve to be possessed by more courageous and enlightened inhabitants.

Such an invasion is rendered more probable from the fact, that the increase of population is greater and more uniform in the countries that are least exposed to the plague, the yellow fever, and other epidemic diseases, that from time to time depopulate the south of Europe. It may be urged that, with the exception of Norway, Switzerland, and some high vallies in Sweden and Hungary, the recurrence of famine is very rare in the northern and central regions of Europe. The granaries that have been established in different states by public authority, must tend to diminish greatly the chances of local famine.

There is, besides, another reason, independent of the means of subsistence, which excites the people in different states to migration; it is the desire of enjoyment, of indulging in luxury or gratifying ambition. That desire is increased by the accounts of travellers, and by a few examples of great wealth amassed in a short period. It is to that

^a Laws have been enacted in Switzerland by which penalties are enforced against the parents of natural children.

^b The Spanish *legua*.

^c Antillon, *Geografia de España*, p. 145.

tendency, natural to the most civilized people in every epoch, that we must ascribe the colonies of the ancient Greeks, of the Spaniards in the 16th century, and of the English in our own times. Portugal and the Low Countries rose into importance from their settlements; the same course of glory and prosperity is not shut against enterprising nations. The form only of colonization has been changed, and it has been discovered to be most advantageous at present not to found colonies but independent states, and by that means to form outlets for an abundant population, marts for industry and security for national liberty against hostile invasions.

It might not be an unprofitable task to arrange the inhabitants of Europe according to their rank, their occupations, and fortune; but that subject belongs more exclusively to political economy, or rather to statistics, which is closely connected with it. The two hundred and five millions that inhabit Europe, submit to fifty-three reigning families, which, including their numerous branches, may amount to 1200 individuals; their appanage, independently of their private incomes, exceeds £11,340,000;^a the greatest part of that sum is consumed in maintaining the splendour and dignities of courts. The acknowledged equality between kings is in reality destroyed by the preponderance of four or five monarchs; the princes of Schwartzburg and Hohenzollern, although sovereigns, and of ancient and illustrious origin, are unable to exert such influence or display such pomp as an Austrian or English minister.

It might have formerly been worth while to ascertain the number of noble families in Europe, or even of the individuals who composed them; but that order is no longer distinguished by a chivalrous spirit or an illustrious birth; a political nobility exists in several great states; individual merit may sometimes obtain that dignity, but it is more frequently lavished by the favour of kings; besides a barrier has been raised between the ancient and the modern nobility.^b A Spanish grandee considers himself much superior to a poor *hidalgo*, and the Russian *odnodvorzi*, although of a more ancient origin than many of the *kniaïz*s, are hardly acknowledged as freemen. Thus, although we were in possession of sufficient data to calculate the number of noble families in Europe, we doubt if instruction or amusement could be derived from the result.^c

The constant and uniform increase of the middling classes, whose education is at least equal if not superior to that of the nobles, forms a subject well deserving of inquiry, but the means of gaining information are still wanting. That active and influential class amounts at least to three millions, but it is very unequally scattered over Europe; it is weak, although protected in Russia, powerful and peaceable in England, numerous but divided in France.

Men distinguished by their intellectual attainments, form a third class; the authors^d in our part of the earth are sufficiently numerous to people a small state. The number of living writers in Germany, France, and England, exceeds 12,000; such a body, were it not divided against itself, might govern the world; but the republic of letters is paralysed by three contending principles, attachment to particular sects in Germany, party-spirit in England, and self-interest in France.

A republic so ill composed might have been compared to Poland, had that state not been annihilated by the great powers.^e The manufacturing population is a modern phenomenon, and one of the most remarkable; fifteen or sixteen millions of Europeans are at present solely indebted for the means of subsistence to their manual labour. If the outlets of commerce were obstructed or diminished by prohibitions, tens of thousands might people the hospitals, or add to the emigrations of twenty thousand individuals, who pass yearly from Europe to the western Continent. These industrious *proletarii*^f abound in England, and in some parts of France, the Low Countries, Germany and Switzerland.

The agricultural class comprehends about two-thirds of the European population; the proportion is smaller in England, but greater in Russia; it may be remarked that the one hundred and forty millions, of whom that class consists, are acquiring daily additional knowledge.

The soldiers in the service of different governments make up a body of two millions, or one hundredth part of the total mass; their maintenance amounts to two-fifths of the public revenue in the most of the European states.

The political value of an individual who contributes to the exigencies of his country, varies remarkably in different kingdoms; it is of the highest importance to ascertain that variation, as it enables us to appreciate the strength of states, the events of our own times, and such as are likely to happen. Each individual contributes to the public revenue in the following proportions:—

	l. s. d.
England, - - - - -	3 13 4s
British possessions in Europe, - - - - -	2 10 10
France, - - - - -	1 8 4
Low Countries, - - - - -	1 7 6
Bavaria and Wirtemberg, - - - - -	0 19 2
Denmark and Saxony, - - - - -	0 18 4
Prussia, - - - - -	0 17 6
Spain, - - - - -	0 15 0
Poland, (kingdom of) - - - - -	0 14 2
Austria, (Austrian Poland,) - - - - -	0 12 6
Galicia, - - - - -	0 13 4
Portugal, - - - - -	0 13 4
Russia, - - - - -	0 11 8
Sardinian states, - - - - -	0 10 10
Sweden, - - - - -	0 10 0
Roman states, - - - - -	0 10 0
The two Sicilies, - - - - -	0 9 2
Tuscany, - - - - -	0 8 4

It may be seen from the above table, that the wealth, the energy and public spirit of a state, may be estimated from the contributions of the individuals who compose it. Constitutional governments are dear, despotic ones are cheap; it is far from our intention to assert that the difference in the sum paid for these two kinds of government is proportionate to the value of the one above that of the other. It may also be observed, from a perusal of the table, that some states with slender revenues are well governed; Tuscany is one of them, but that fact need not excite surprise; very few troops are maintained in Tuscany, because it is in reality under the protection of a *great empire*—*bene qui latuit, bene vizit*. Some governments, loaded with an immense public debt, are reduced to the necessity of taxing their subjects beyond the natural proportion of their means and resources.

^a "260 millions francs."
^b "Entre les nobles de naissance eux-mêmes," between those of noble descent, not necessarily ancient or modern, but of different grades and orders.—P.
^c "The number of those of acknowledged noble descent in Europe, is calculated at half a million."
^d The lawyers and physicians are included with the authors, in the original.—P.

^e "A republic so disunited may be well compared to Poland; but the different governments have not yet been able to agree on its extinction."
^f The *proletarii* composed the lowest order of Roman citizens. They were so called, because, with the exception of their offspring, they contributed nothing to the state.
^g "108 francs," 4l. 10s.

It is well known that such is the case in England; but if an Englishman were to contribute in the form of taxation twice as much as a Frenchman, both nations might be nearly on a footing of equality. It must have been observed, that the revenues payable in money, are scanty in some kingdoms of eastern Europe, particularly in Russia, but the deficiency is supplied by *præstationes in natura*;^a these sources of emolument it is difficult to calculate.

Some of the republics and free towns have been hitherto omitted, as it was thought best to consider them apart. The portion of each individual amounts to the following sums. In

	l. s. d.
Frankfort, - - - - -	2 5 10
Bremen, - - - - -	1 3 4
Lubeck, - - - - -	1 2 6
Hamburg, - - - - -	1 0 10
Ionian Islands, - - - - -	0 14 2
San Marino, - - - - -	0 11 8
Cracow, - - - - -	0 9 2

If the same rules were applied to determine the value of the military service in all the European states, the difference might appear still more remarkable; but it is not easy to express that difference in numbers; first, because the effective condition of armies varies; secondly, because we must include the naval force that is generally disbanded in time of peace; lastly, because the same number of combatants does not represent the same physical strength or courage^b in the field of battle.

It is likely, however, that the proportion, which every European state might adopt without exhausting its resources, or even without taking away any useful hand from agriculture, is that of one soldier for every hundred inhabitants. It will be seen that several great and small military states go beyond that proportion, while others of a different description fall short of it.

In England, the ratio ^c is as one soldier to	140 inhabitants.
In France, - - - - -	110
In Austria, - - - - -	100
In Russia, - - - - -	90
In Bavaria, - - - - -	69
In Prussia, - - - - -	68
In Poland, (kingdom of) - - - - -	60
In Wirtemberg, - - - - -	59
In Sweden, - - - - -	58
In Denmark, - - - - -	57
In the two Hesses, - - - - -	49
The proportions in other states are much lower.	
In the two Sicilies, - - - - -	180
In Tuscany, - - - - -	200
In the Roman states, - - - - -	300

It is impossible to derive any accurate conclusion from these results; for we cannot separate the warlike character of nations and the extraordinary efforts of governments. One fact however is certain,—the political, military and financial value of the states in the north of Europe, is double, treble, or even four times greater than that of states equally populous in the south. If it be supposed that Switzerland or Denmark and the two Sicilies were nearer one another and that during a war between them, the other European powers remained neutral, the result of the contest might be easily predicted. It is probable that the Nea-

^a Payment in kind or commodities.

^b "The absolute force," which may depend on skill and *materiel*, as well as physical strength and courage.—P.

^c In time of peace.

^d Doubtful and uncertain opinions are marked by the sign (?). Nations now extinct, and dead languages, or those of which there remains no living branch distinctly recognised, are indicated by the sign (+). Those of which

politans would first sue for peace and give up Sicily to satisfy the Danes; the kingdom of Naples might be as easily conquered by the Swiss, if they were united and under the command of experienced officers. But the population of Naples is four times greater than that of Switzerland or Denmark, its territory twice as extensive, and its agricultural produce ten or twelve times more valuable. The inhabitants in the south of France cannot endure the fatigues of war so well as those in the north, and the character of the Spaniards forms no exception to the general rule. If Europe be divided by the Rhine and the Alps, or by a line drawn from Amsterdam to Venice, it will be found that the number of troops in the north and in the east, amounts to twelve or fourteen hundred thousand, and that it does not exceed six or seven hundred thousand in the south and in the west. The revenues are divided in an inverse proportion.

In the north and in the east,	£71,400,000
In the south and in the west,	138,600,000

Synoptical table of ancient and modern European nations, classed by families and languages.^d

I. PELASGIC FAMILY.

A. *Thracian Branch*, (Adelung. Vater. Gatterer.)

1. Phrygians in Asia; Bryges in Europe.†
2. Lydians; a colony of them settled in Etruria? Lydias, a district of Macedonia. Tyrrheni of Macedonia.
3. Trojans, their migrations.†
4. Bithynians, from whom descended the Thyni. × (Mannert.)
5. Carians, some colonies in Laconia, &c. † (R. Rochette.)
6. Thracians proper. × (See Slavonians, &c.) Maidi (Mædi) in Thrace, (a branch of the Medes)? (M.B.) Pelagones in Macedonia; Pehluwan? (M.B.)

B. *Illyrian Branch*.

1. Mysi or Mæsi, a mixed people.
2. Daci or Getæ? × (See Walachians.)
3. Dardani? ×
4. Ancient Macedonians, at least a part of them. ×
5. Ancient Illyrii. × (See Albanians.)
 - a, Parthini, or the White, in Albanian.
 - β, Taulantii.
 - γ, Molossi.
 - δ, Ardiaei (Eordæi, in Macedonia.)
 - ε, Dalmatæ.
6. Pannonians or Pæones †. (Mannert.)?
7. Veneti, an Illyrian colony in Italy. × (Freret.)
8. Siculi, idem. ×
9. Japyges, ε idem.†

C. *Pelasgo-Hellenic Branch*.

1. Pelasgi or Pelargi, the aborigines of Greece and Italy ×: (from *pela*, a rock or stone; those who built with stone.) M. B.
2. Leleges, an Asiatic colony, that came into Greece. † (R. Rochette.)
3. Curetes, idem. † †
4. Perrhæbi, Pelasgi of Thessaly.†
5. Thesprotii, idem in Epirus.†
6. Ætoli? (perhaps Illyrians.)
7. Hellenes, called anteriorly Græci in Epirus, and Græci in Thrace.

we can discover some obscure traces, or which are obviously mixed with others, are denoted by the sign (×). Lastly, in making mention of certain opinions, we have affixed the names of the authors who first supported them. To such hypotheses as we ourselves think likely, and which are not mentioned by others, are added the letters M.B.

^e Japydes or Japodes?—P.

- α, Achæi or Achivi, in other words, the inhabitants on the banks of rivers.
 β, Iones or Iaones, archers or shooters of darts.
 γ, Dores or Dorians, men armed with spears.
 δ, Aioli or Eolians, wanderers or runners.
 8. Arcadians, Pelasgi of the Peloponnesus. ×
 9. Ænetri, emigrants into Italy. ×
 10. Tyrrhenti, idem, idem. × (R. Rochette.)

ANCIENT LANGUAGES SPOKEN BY THESE NATIONS.

A. Thracian Languages, † or × ?

1. Thracis proper, connected with the Persian, &c. by proper names.
 2. Phrygia, idem; one of the sources of the Greek, and of the Illyrian or Albanian.
 3. Lydian, perhaps a branch of the Phrygian.
 4. Carian, perhaps Pelasgian mixed with Phœnician.
 Lycaonian of St. Paul.

B. Illyrian Languages, × ?

1. Illyrian proper, one of the sources of the Albanian.
 2. Getan, before the conquests of the Slavonian nations.
 * The Sigynnæ, a Median or Hindoo tribe, ancestors of the Gypsies or Zigeunes, who spoke probably an Asiatic dialect.

C. Hellenic Languages, ancient Greek.

(Thiersch and M.B.)

1. Primitive Hellenic, allied to the Pelasgic. †
 a. Arcadian. †
 b. Thessalian, with the ancient Macedonian Greek? ×
 c. Ænотrian, transported into Italy and mixed with the Latin. ×
 2. Hellenic language during the historic times.
 a. Old Æolian, allied to the Ænотrian; (language of the gods in Homer.) ×
 b. Ancient Dorian, descended from the Æolian; (language of Sappho, Pindar, &c.)
 α, Laconian, a separate dialect.
 β, Dorian of Syracuse, (language of Theocritus.)
 c. Ancient Ionian, or the Hellenic polished* by commercial nations; (language of Homer, classical in epic poetry.)
 Asiatic Ionian, still more polished; † (language of Herodotus.)
 β, European Ionian, more energetic than the others; the Attic dialect forms its principal branch; (the classic language of orators and tragedians.)
 d. Common literal Greek, or the Attic dialect purified and settled by the grammarians of Alexandria; the common language of the whole of Greece, of the East, and of the higher classes at Rome, to the time of the Barbaric invasions.
 e. Local dialects, little known.
 α, Vulgar Alexandrian.
 β, Syro-Greek, (language of the New Testament.)

II. ETRUSCAN OR ITALIAN FAMILY.^b

1. Aborigines or Opici (children of Ops, the earth,) generic names, (M.B.)
 a. Euganei, anterior to the Veneti. †
 b. Ligures, divided into numerous tribes.
 c. Etrusci, the mass of the Etrurian nation. (M.B.)
 * The Etrurian nation appears to have been composed of castes or tribes.
 α, Caste of the nobles. Larthes in Etruscan; Tyrani or Tyrrhenti, in Æolian Greek or Pelasgic.
 β, Caste of the priests. Tusci or sacrificers.
 γ, Caste of the warriors. Rasenæ? See below.
 δ, Caste of the people.
 d. Piceni and Sabini.
 e. Marsi, &c. &c.
 f. Umbri. (Dionysius of Halicarnassus.)
 g. Samnites, perhaps Samones, people of the high country (Samos;) divided into,
 1. Hirpini, (wolf hunters.)

* "Adouci," softened—the characteristic of the Ionian was the free use of vowels and the avoidance of harsh consonants.—P.

^b Many reasons might be given for arranging the Etruscan family as a fourth branch of the Pelasgic family, but as many might be given for arranging it as a branch of the Celts.

α Raseni or Reseni.

2. Caudini, (armed with trunks of trees.)
 3. Pentri, (from pennus, a point.)
 4. Caraceni, (wearing the caraca.)
 5. Frentani, (armed with slings.) (M. B.)
 h. Latini, &c. ×
 i. Ausones. ×
 k. Siculi, according to Dionysius.
 l. Lucani and Bruttii or Brettii.
 2. Colonies to which some allusion is made in history.
 a. Eastern, namely:
 α, Pelasgi of Arcadia, (1400 years before Christ.) †
 β, Ancient Græci and Pelasgi of Thessaly, (idem.) †
 γ, Ænотri divided into,
 1. Ænотri proper, (the vine dressers.)
 2. Chonii, (the husbandmen.)
 δ, Daunii, Iapyges, &c.
 ε, Tyrrhenti from Macedonian Lydia, (1100 or 1200 years before Christ.) †
 ζ, Trojans, whose language was perhaps the ancient Æolian, (900 years before Christ.) (M. B.)
 η, Achæan, Doric and Chalcidian colonies in Sicily and Magna Græcia. ×
 b. Northern colonies:
 α, The Siculi, according to the Moderns. × ?
 β, The Veneti; either Illyrians, or Slavonians.
 γ, The Rhasenæ (Rheti;) the warlike tribe of Etruria ?
 δ, The Peligni; (Pela, a rock, in the Macedonian language.) ?
 c. Western colonies.
 α, Celtic colonies, (Freret.)
 1. Umbri? (See above.)
 2. Senones.
 3. Ligures? ? (See above.)
 4. Insubres (Isombri.)
 5. Volsci (Volcæ)? †
 β, Iberian or Bask colonies.
 1. Sicani.
 2. Osci. ×^d
 3. Corsi. ×
 4. Ilienses in Sardinia. (See W. Humboldt.)
 5. Balari,^e &c. &c.

ANCIENT LANGUAGES OF THESE NATIONS.

A. Italian Languages. (Merula and M. B.)

1. Etruscan language ×; divided probably into the sacred and the vulgar, besides the dialects, as:
 a. Rhetian.
 b. Faliscan.
 c. Umbrian.
 2. Opsci, language of central Italy. ×
 a. Sabellian or Samnite.
 b. Sabine, &c.
 c. Latin.
 3. Ausonian, Sicilian, Lucanian, &c.

B. Languages not connected with the Italian.

1. Celtic and Illyrian dialects.
 a. The Ligurian. ×
 b. Dialect of the Cisalpine Gauls. ×
 c. Idem of the Veneti.
 d. Volscian. ?
 e. Dialect of the Japyges. ?
 2. Iberian dialects. (See W. Humboldt.)
 a. Oscan, (Eusque or Basque.)
 b. Sicilian, &c.
 3. Hellenic dialects. ×
 a. Dorian. (Merula.)
 1. Syracusan or Siciliote.
 2. Tarentine (Laconian.)
 b. Achæo-Ionian. (M.B.)
 1. Sybaritic.
 2. Crotoniate.
 c. Æolo-Dorian.
 1. Locrian.

^d We must not confound the Opici, or Opsci, who were aborigines of Italy, and spoke the ancient Italian language, with the Osci, a colony of the Osques, Eusques or Vasques from Spanish Vescitania, settled in the Italian Vescitania, or Campus Vescitanus. The two names were confounded by the ancients, which has given rise to many difficulties.

^e Baleares?—P.

MODERN NATIONS AND LANGUAGES DESCENDED FROM
THE PELASGO-HELLENO-ETRUSCAN BRANCHES.

1. Modern Greeks or *Romei*, descended from the ancient Greeks, mixed with the Romans, Slavonians, Asiatics, &c.
Modern Greek language, (Romeika, Aplo-Hellenica.)
 1. Modernized Æolo-Dorian.
 2. Tzakonite, a branch of the Dorian.*
 3. Cretan or Candiotie.
 4. Epirotic and Albanian Greek.
 5. Walachian and Bulgarian Greek, &c. (F. Adelung.)
 2. Albanians or Schypetars, a mixture of ancient Illyrians, Greeks, and Celts. (Masci and M.B.)
Schype [Skip] or Albanian language.
 - a. Albanian proper.
 - α Dialect of the Guegues.
 - β, ———— Mirdites.
 - γ, ———— Toskes.
 - δ, ———— Chamouris.
 - ε, ———— Iapys.
 - b. Albanian mixed.
 - α Græco-Albanian of Epirus.
 - β, Italo-Albanian of Calabria.
 - γ, Albanian of Sicily.
 3. Walachians or Roumouni, a mixture of the Thracian and Dacian peasants, with the Roman military colonists, the Slavonians and others.
Walachian, Slavo-Latin, or Daco-Roman language.
 - a. Roumounic or Walachian proper.
 - b. Moldavian.
 - c. Walachian of Hungary and Transylvania.
 - d. Kutzo-Walachian, or Walachian of Thrace and Greece.
 4. Italians.
 5. French. } See Celto-Roman nations.
 6. Spaniards. }
- Celto-Latin languages.
- a. Italian.
 - b. Provençal.
 - c. French.
 - d. Spanish.

III. SLAVONIC OR WINIDIC FAMILIES.

ANCIENT BRANCHES KNOWN TO THE GREEKS AND ROMANS.

A. Nations who were masters of the Slavonian countries.

1. Scythians, divided into castes and tribes. (M.B.)
 - a. Royal Scythians, the ruling caste, who spoke the Zend or another dialect of Upper Asia.
* Fourteen Medo-Scythian words found in Herodotus.
 - b. Scythian husbandmen. Vassal tribes, perhaps Slavonians, sold as slaves.
* Scythian dialect, in Aristophanes. Words in Pliny. Inscriptions at Olbia.
 - c. Scythian shepherds, vassal tribes, perhaps Finns or Tchudes. (Bayer, &c.)
2. Sarmatæ, or Sarmatians, a conquering horde, resembling in their physiognomy the Mongol Tartars. (M.B.)
 - a. Sarmatæ proper.
 - b. Jaxamatæ, (perhaps the same as the Jazyges.)
 - c. Exomataæ.
 - d. Thisomataæ, (inscription of Protagoras.)
3. Ostro-Goths, conquerors of the Sarmatians. See below.

B. Ancient Slavonian Nations, (without any general denomination in the classic authors.)

1. Southern Slavonians.
 - a. Heneti in Paphlagonia? †. (Sestrenczewicz.)
 - b. Cappadocians? (Idem.)
 - c. Crobyzi (Chrowitzzy,) in Thrace. × (M.B.)
 - d. Bessi, idem. ×
 - e. Triballi (Drewaly)? †
 - f. Dardani, from *darda*, a dart?? (M.B.)
 - g. Different tribes in the mountains of Greece.
 - h. Carni and Istri.
 - i. Veneti, according to some authors.
2. Northern Slavonians.
 - a. Serbi and Vali, near the Rha (Wolga.) †

* Tzakonic.—*Leake*. Spoken by the inhabitants of seven villages on the W. of the gulf of Nauplia, between Nauplia and Monemvasia.—P.

- b. Roxolani ×, called afterwards Ros.
- c. Budini, a Gothic or Slavonic people. †
- d. Bastarnæ and Peucini.
- e. Daci, or some other people that gave to the names of the Dacian towns the Slavonic terminations in *ava*. ×
- f. Olbiopolites of the second century, mixed with the Greeks. †
- g. Pannonii, (Pan, a lord)?
- h. Carpi, in the Carpathian mountains.
- i. Biessi, in the Biecziad mountains.
- k. Saboci, &c. &c.
- l. Lygii ×, afterwards Liæchi, &c. &c.
- m. Mugilonæ, and others, mentioned by Strabo.
- n. Venedi or Venedæ, called afterwards Wends, at the mouths of the Vistula.
- o. Semnonæ, between the Oder and the Elbe? ×
- p. Vindili, mentioned by Pliny.
- q. Osi, mentioned by Tacitus; (Otschi, fathers.)

SLAVONIAN NATIONS AND LANGUAGES KNOWN SINCE THE
TIME OF ATTLA.

I. SLAVONIANS PROPER.

A. Eastern and Southern Branch. (Dobrowski, Vater.)

1. Russians, a mixture of the Roxolani, Slavonians, Goths, &c.
 - a. Great Russians of Novgorod, Moscow, Susdal, &c.
 - b. Little Russians of Kiow and the Ukraine.
 - c. Rusniacs, or Orosz, in Galicia and Upper Hungary.
 - d. Cossacks, mixed with the Tartars, &c.
- RUSSIAN LANGUAGE.
 - α, Dialect of Great Russia (written language.)
 - β, Dialect of Susdal, the most heterogeneous of any.
 - γ, Dialect of the Ukraine, or of Little Russia.
 - δ, Rusniac, a very ancient dialect.
 - ε, Lithuanian Russian, derived from the Kriwitzi? See Wend.
 - ζ, Cossack Russian.
2. Servians, or Slavonians on the Danube.
Servian Language (Serbska.)
 - a. Servian proper, (a written and polished dialect.)
Ancient Slavonian, language of the Russian Church, almost the same as the Servian.
 - b. Bosnian dialect.
 - c. Ragusan and Dalmatian dialect, mixed with Italian.
 - d. Dialect of Montenegro.
 - e. Uscock, mixed with Turkish.
 - f. Slavonian, very pure.
 - g. Bulgaro-Slavonian, &c. &c.
3. Croatians, or Chrobats, or Slavonians of Noricum.
Croatian Language.
 - a. Croatian or Chrobat dialect, (or dialect of the mountains.)
 - b. Sloveni, spoken in the west of Lower Hungary, (a written dialect.)
 - c. Windish, spoken by the southern Windes or Wends, a mixed people.
 - α, Windish of Carniola; dialects of the Karstes, Tziszches, Poykes, &c.
 - β, Windish of Stiria and Carinthia.
 - d. Dialect of the Podluzaki in Moravia, and perhaps of the Charwats.

B. Central and Western Branch. (Dobrowski.)

1. Poles or Liaiches (Lechs.)
Polish, (a written language.)
 - a. Dialect of Great Poland.
 - b. ———— Little Poland.
 - c. The Mazures in Mazovia and Podlachia. Mazure, a mixed dialect.
 - d. The Goralis in the Krapack mountains.
 - e. The Kassubians in Pomerania?
 - f. The Silesian Poles; Medziborian dialect, old Polish mixed with German.
 2. Bohemians or Czechs (Tcheks.)
 - a. Czechs, properly so called.
 - b. Czechs of Moravia.
* Czech language, written and polished, few or no dialects.
 3. Slovacks or Slavonians of Northern Hungary.
 - a. Slovack dialects confined to the mountains.
 - b. Dialects on the banks of the Danube.
 - c. Hannack dialect, in Moravia.
 - d. Straniack ———, idem.
 - e. Schelagschack ———, idem. &c. } Derived from the Mahrawany or Slavonic of Great Moravia.
- * Dialect of the Czech, employed as a written language.

- η, Dialect of Misnia, (or modern Upper Saxon.)
- θ, ——— of Livonia and Esthonia, (upper classes.)
- ι, ——— of the Saxons of Transylvania.
- b. General written language, High German, or the dialect of Misnia, cultivated and reduced to rules.

B. Cimbro-Saxon Branch, in the plains on the shores of the Baltic and North Seas.

ANCIENT TRIBES.

- Cimbri ×, (according to others, Scandinavian Iotes.)
- Angli ×; ancient Anglic dialect. ×
- Saxones, (Ingævones of the Romans.)
- Heruli ? †
- Longobardi, or Vinuli of Cimbrina ×; Vinulic dialect.
- Semnonnes ? † ? (rather Wendish Slavonians.)
- Cherusci, mixed with the Francs. ×
- Bructeri and Chauci, idem. ×
- Frisii.
- Batavi, according to the Romans, a colony of the Chatti.
- Menapii, &c. ×
- Tungri.

MODERN DIVISIONS.

- i. Saxons or Low Germans.
 - a. Saxon proper, or Dialect of Lower Saxony.
 - α, Polished dialect of Hamburg, &c.
 - β, Dialect of Holstein.
 - γ, ——— of Sleswick, between the Sley and the Eyder.
 - δ, ——— of the Marsches or Low Country.
 - ε, ——— Hanoverian, (several varieties.)
 - ζ, ——— of the Hartz Miners.
 - η, ——— of the March of Priegnitz, (derived from the Longobardo-Cimbric.)
 - b. Eastern Saxon.
 - α, Dialect of Brandenburg. (Markish.)
 - β, ——— modern Prussian, since the year 1400.
 - γ, ——— modern Pomeranian.
 - δ, ——— Rugian.
 - ε, ——— of Mecklenburg.
 - c. Westphalian or Western Saxon.
 - α, Dialect of Bremen.
 - β, ——— of Central Westphalia.
 - γ, ——— of the ancient Dutchy of Engern, perhaps the Angrivarian. × (Weddigen.)
 - δ, ——— of Cologne.
 - ε, ——— of Cleves, &c. &c.
- 2 Frieslanders (Frison.)
 - Ancient Frieslandic (Frison or Frisic.)
 - Modern dialects.
 - a. Frieslandic proper.
 - α, Frieslanders of the north or of Cimbrina; dialects of Bredsted, Husum, Eyderstedt †, and the islands.
 - β, Frieslanders of Westphalia; tribes and dialects of Rustringen, Wursten and Saterland.
 - γ, Frieslanders of Batavia; dialects: 1st, common Frieslandic; 2d, Frieslandic of Molckwer (Anglo-Frieslandic); 3d, Frieslandic of Hindelopen.
 - b. Modern Batavian (Netherlandish or Low Dutch.)
 - α, Dutch (Hollandish,) a written and polished language.
 - β, Flemish, idem, idem.
 - γ, Dialect of Guelders.
 - δ, ——— of Zealand and Dutch Flanders.
 - ε, ——— of Kemperland, mixed with Teutonic or High German.
 - ζ, ——— of Bois-le-Duc.

C. Scandinavian or Normanno-Gothic Branch.

ANCIENT TRIBES AND DIALECTS.

- | | | | |
|---|---|--|--|
| Iotes.
Goths.
Mannes.
Vanes, &c. | } | Tribes anciently settled in Scandinavia. (Alvismal.) | Ancient Iotic, Low Scandinavian.
Ancient Gothic, High Scandinavian.
Manheimic, middle dialect, source of the modern languages.
Vandalic ? |
|---|---|--|--|

^a "The Jowring."

- Alani ?
- Rhos or Roxolani ?
- Gothones (Guday of the Lithuanians.)
- Heruli ? (Suhm.)
- Segri.
- Longobardi or Vinuli, (emigrants.)
- Vandali.
- Iuthungi.
- Burgundiones.

People of Scandinavian origin, mixed with Slavonians, Wends, and other conquered nations.

- Alanic, similar to the Gothic. †
- a. Rhos Alanic (× in the Russian.) Vater.
- Ancient Gothic.
 - a. Ostrogothic (× in Ukraine and Italy.)
 - b. Visigothic (× in Poland and Spain.)
 - c. Mæsothotic (dialect of Uphilas, mixed.)
- Herulic, very uncertain, mixed, according to some writers, with the Lithuanian.
- Longobardic, perhaps Iotic or Cimbric.
- Burgundian, perhaps Normannic, mixed with Wendish.

MODERN DIVISIONS.

- Normannic, or the general language of the eighth and ninth centuries, (language of the Scalds and the Edda,) Alt-Nordisch of Grimm.
- 1. Norwegian (Norrena) of the tenth and eleventh centuries.
 - a. Icelandic, language of the Sagas, still written.
 - b. Norwegian of the central vallies.
 - c. Western Dalecarlian (or Dalska.)
 - d. Dialects of Jemptland and Helsingland.
 - e. Dialect of the Faroe Islands.
 - f. Norse in the Shetland Islands.
- 2. Swedish (Svensk,) since 1400.
 - a. Swedish, the written language.
 - α, Dialect of Upland, variety of Roslag.
 - β, ——— of Norrland.
 - γ, Eastern Dalecarlian, (the older dialect.)
 - δ, Swedish dialect of Finland, with some varieties.
 - b. Modern Gothic.
 - α, Westro-Gothic.
 - β, Ostro-Gothic.
 - γ, Dialect of Warmeland and Dal.
 - δ, ——— of Smoland.
 - ε, ——— of the Island of Runoe in Livonia.
- 3. Danish (Dansk,) since 1400.
 - a. Danish.
 - α, Dialect of the Danish Islands, the written language.
 - β, ——— of Scania, to 1660.
 - γ, ——— of the Island of Bornholm, (the ancient dialect in the 12th century.)
 - δ, Modern Norwegian (Norsk,) in the towns and lower vallies, (a written language.)
 - b. Jutlandish or Modern Iotic.
 - α, Normanno-Iotic, in the north and west.
 - β, Dano-Iotic, along the Little Belt.
 - γ, Anglo-Iotic, in the district of Anglen.

D. Anglo-British Branch.

ANCIENT TRIBES AND DIALECTS.

- | | | |
|--|---|--|
| Belgæ.
Cumbri. | } | See below, Celtic Family. |
| Roman Gauls.
Ancient Germans or Scandinavians. (Tacitus.) | } | Romana rustica. ×
Ancient Gothic or Scandinavian dialect, 100 years before Christ. × |
| Angles.
Saxons.
Jutlanders. | } | Anglo-Saxon language, 449—900. ×
a. Anglian, north of the Thames.
b. Saxon, South of the Thames.
c. Iotic, in Kent. |
| Danes.
Normans. | } | Dano-Saxon language, 800—1040. ×
Neustrian-French dialect, from 1066 ×. |

LIVING LANGUAGES AND DIALECTS.

- a. English, the written language.
 - α, Dialect of London (Cockney.)
 - β, ——— of Oxford and the central counties.
 - γ, ——— of Somersetshire.
 - δ, ——— of Wales (English.)
 - ε, ——— of the Irish (English with the Hibernian accent.)
 - ζ, ——— of the English in Wexfordshire.
 - η, ——— of Berkshire, ^a
 - θ, ——— of Suffolk and Norfolk.
- b. Northumbrian English (Dano-English.)
 - α, Dialect of Yorkshire.
 - β, ——— Lancashire.
 - γ, ——— Cumberland and Westmoreland.

- c. Scotch (Anglo-Scandinavian.)
 - α, Lowland Scotch.
 - β, Border dialect.
 - γ, Scottish dialect in Ireland (Ulster.)
 - δ, ————— in the Orkney Islands.
- d. Anglo-American.

VI. CELTIC FAMILY.

Ancient Tribes and Dialects. M. B.

1. Celts on the Danube.* Dialects now unknown.
 - a. Helvetii. †
 - b. Boii. ×
 - c. Scordisci. †
 - d. Albani in Illyria? Celtic words in the Albanian language.
 - e. Cotini in Sarmatia, &c. (Tacitus.)
2. Italian Celts. × Dialects little known.
 - a. Ligures or Ligyes, as far as the Rhone.
 - b. Insubri, Cenomani, &c.
 - c. Rhasenæ or Etrurians? Words in the Etruscan language. ×
 - d. Ombri, &c. &c.

See above, Pelasgo-Italians.
3. Celts of Gaul. Celtic or Gallic language of the Roman historians.
 - a. Salyes.
 - b. Allobroges, &c. (Tribes of the Alps.)
 - c. Volcæ, perhaps Belgæ.
 - d. Arverni, (*ausi Latio se dicere fratres.*)
 - e. Ædui, Sequani, Helvetii.
 - f. Bituriges, &c. &c.
 - g. Pictones, Santones, &c.
 - h. Veneti, &c.
 - i. Carnutes, Cenomani, Turones, &c. (Celtic of the Druids.)
 - k. Colonies in the British Islands?
 - * Picti from the Pictones?
 - l. Colonies in Spain. Celtiberian language.
 - a, Celtiberi, divided into six tribes.

Berones.	Lusones.
Pelendones.	Belli.
Arevaci.	Ditthi.
 - β, Celtici on the Anas.
4. Hibernian Celts.
 - a. Ierni (Iverni, Hiberni) in Ireland. Ancient Erse language? †
 - b. Scoti, settled in Scotland.
 - c. Silures, in South Wales. ×
 - d. Damnonii, in Cornwall. ×
 - e. The Celts of Galicia.
 - α, Artabri or Arotrebi.
 - β, Nerii.
 - γ, Præsamarcæ.
 - δ, Tamarici.
 - f. The Oystrimnes.
5. Celto-Germans or Belgæ. Belgic or Celto-Germanic language. ×
 - a. Continental Belgæ. ×
 - α, Belgæ proper.
 - β, Treveri, Leuci, &c.
 - γ, Nervii.
 - δ, Morini.
 - ε, Menapii, Tungri, &c. (See above.)
 - b. Insular Belgæ, × or Celto-Britons, or Cumbri. Celto-Briton, Cumbrian or Cambrian language.
 - α, Belgæ of Wiltshire, Atrebates, &c.
 - β, Cantii.
 - γ, Brigantes, Parisii, &c.
 - δ, Menapii, Cauci, &c. of Ireland.
 - c. Galatæ or Gauls of Asia. (St. Jerome.†)

MODERN NATIONS AND LANGUAGES.

1. Celts proper.

<ol style="list-style-type: none"> a. Irish or Ires. b. Caledonians or Highlanders. 	}	Gaelic or Erse language.	{	<ol style="list-style-type: none"> a. Irish dialect or Erinach. b. Scotch ——— or Cald-nach. α, In the Highlands. β, In Ulster. γ, Manks, in the Isle of Man. δ, Dialect of Walden in Essex.
---	---	--------------------------	---	---
2. Cambrians^b or Belgic Celts.
 - a. Welsh.

Welsh language (Kymreg.)

 - a. Dialect of Wales.
 - b. ——— of Cornwall. †

b. Bretons or Breyzad.

Low Breton language.

- a. Breton bretonnant, or Treconian, (in Treguier.)
- b. Leonarde, in St. Pol de Leon.
- c. Cornouailliere, in Quimper.
- d. Vanneteuse, in Vannes.

VII. IBERIAN FAMILY.

1. Turdetani. Unknown dialect, cultivated about 6000 years ago. (Strabo.)
 2. Konii, (Cynetæ, Cynesii.) * Concani, &c. Finnish and Slavonian words?
 3. Lusitani. Unknown dialect. †
 4. Kallaiki or Gallæci. Perhaps an unknown branch of the Celts. ×
 - Idem. †
 - Idem.
 - Idem.
 5. Astures.
 6. Vaccæi.
 7. Vettones.
 8. Carpetani.
 9. Oretani.
 10. Editani.
 11. Bastetani.
 12. Contestani.
 13. Ilargetes.
- * Vescitania, Osca.
14. Ileracones.
 15. Laletani.
 16. Cerretani.
 17. Aquitani.
 18. Cantabri.
 19. Vascones.
- } Unknown dialects of the Iberian language. ×
- } Oscan language; dialect of the Bask. † (M.B.)
- } Unknown Iberian dialects.
- } Bask dialect.
- } Idem.
- } Bask or Iberian language. (W. Humboldt.)
- a. Lapourdan, in Basque-~~to~~ and Navarre.
 - b. Guipuzcoan, in Guipuzcoa and Alava.
 - c. Viscayan, in Biscay.

VIII. CELTO-LATIN LANGUAGES.

A. Italian.

- * Romana Rustica, the common source of the Roman languages of Southern Europe, A. D. 1000.
1. Northern Italian.
 - a. Italo-French dialects.
 - α, Dialect of Piedmont.
 - β, ——— of Friuli; varieties of Fassa, Livina-longo, &c.
 - b. Liguro-Italian dialects.
 - α, Genoese or Zenese, (a written dialect.)
 - β, Dialect of Monaco.
 - γ, ——— of Nice.
 - δ, ——— of Estragnolles, &c.
 - c. Lombard dialects.
 - α, Milanese and some others.
 - β, Bergamask (Bergamasco.)
 - γ, Brescian.
 - δ, Modenese.
 - ε, Bolognese.
 - ζ, Paduan.
 2. Southern and Eastern Italian.
 - a. Venetian dialects.
 - α, Venetian proper, (a written and polished dialect.)
 - β, Dalmato-Italian.
 - γ, Corfiote.
 - δ, Zantiote.
 - ε, Italian as spoken in some islands of the Archipelago.
 - b. Tuscan dialects.
 - α, Pure Tuscan, confined to the learned and higher classes.*
 - β, Vulgar Florentine.
 - γ, Siennese or Sanese, (written and polished.)
 - δ, Pisan.
 - ε, Lucchese.
 - ζ, Pistoian.
 - η, Arrezzan and several varieties.

* Dialects of Umbria and the Marches??
 - c. Ausonian dialects.
 - α, Roman, a polished dialect.

* The cultivated Italian, or the language of literature and polished society.—P.

* Trasteverine, a vulgar jargon.

β, Sabine.

γ, Neapolitan, (a written dialect.)

δ, Calabrian.

ε, Apulian or Pugliese.

ζ, Tarentine, or Græco-Apulian.

η, Dialect of Bitonto.

3. Insular Italian.

a. Sicilian.

α, Sicilian of the 12th century, (a written language, employed in poetry.)

β, Modern Sicilian, (a written language.)

* Dialects little known.

b. Sardinian.

α, Sarde, divided into two dialects.

1. Campidanese, (a written dialect.)

2. Al Capo di Sopra.

β, Tuscan of Sassari, &c.

γ, Catalan or Algarese. (Algheri.)

c. Corsican.

B. Romanic. (Provençal, Occitanic.)

a. Romanic of the Alps.

1. Rhetian or Romanic of the Grisons and Tyrol.

α, Dialects of the high country of the Grisons.* 1st, of Schams: 2d, of Heinzenberg: 3d, of Domlesch: 4th, of Oberhalbstein: 5th, of Tüsis.

β, The Rumonic of the plains and the mountains.

γ, The Ladinum at Coire, with the Upper and Lower Engadin.

δ, The Gardena in the valley of Groden.

2. Valaisan, an ancient Celto-Roman dialect. (Low Valais.)

3. Helvetian, or Romanic of Friburg.

α, *Lo Gruverin*, in the upper districts.

β, *Lo Quetz*, in the centre.

γ, *Lo Broyar*, in the low districts.

b. Provençal.

1. Provençal proper, (a written language.)

α, Dialect of Aire.

β, ——— of Berry.

2. Languedocian proper.

α, Dialect of Toulouse, or the Moundi; (a written language.)

β, ——— of Nîmes.

γ, ——— of the neighbourhood of Nice.

δ, Rovergat.

ε, Valayan.

3. Dauphinese, mixed with a greater portion of the Celtic, (a written language.)

α, Bressan.

β, Dialect of Bugey.

4. Gascon.

α, Gascon of Gascony.

β, Tolosan, spoken by the common people; different from the Moundi.

γ, French Bearner.

δ, Modern Limosin and Perigordin.

c. Iberian Romanic.

1. Ancient Limosin.

2. Catalanian (Catalan.)

3. Valencian, (a written language.)

4. Dialect of Majorca.

Corn Obergräubünden, Upper Grisons.

* *Lingua Franca*, a mixed dialect, of which the Catalanian, Limosin, Sicilian, and Arabian, form the greatest part.

C. Spanish, divided into two branches.

a. Castilian, (a written and polished language, called in the provinces, *el romanze*.)

1. Dialect of Toledo, (the purest.)

2. ——— of Leon and the Asturias.

3. Arragonian.

4. Andalusian.

5. Murcian.

b. Galician or Galego.

1. Galego proper.

2. Portuguese, (a written and literary language,) divided into the varieties of Alentejo, Beira, and Minho.

3. Dialect of Algarve.

D. French.

LANGUAGES OF THE MIDDLE AGES.

a. *Romane* of the north, or *Franco-Romane*, (language of the Trovères.) ×

b. *Celto-Romane* of the west and the centre. ×

c. *Vasco-Romane*, in Gascony. ×

d. Pure *Romane*, or ancient provençal, (language of the Troubadours.) ×

MODERN LANGUAGE.

1. Academic French, (the written language, social language of Europe.)

2. Spoken dialects.

a. Ancient dialects in the north of France.

1. Walloon or Rouchi, at Namur and Liege.

2. French Flemish.

3. Dialects of Picardy and Artois.

} Branches of the *Franco-Romane* of the north.

b. Modern dialects of the north.

1. Norman.

2. Vulgar French (of the Isle of France,) with the dialect of Champagne.

3. Dialects of Lorraine and the Vosges.

4. Burgundian.

5. Dialects of Orleans and Blois.

6. Angevin and Manceau, (dialects of Anjou and Mayenne.)

7. Canadian French, (from the banks of the Loire.)

8. French of Berlin, Fredericia, &c. (Refugees.)

c. Dialects of the central and western provinces.

1. Dialect of Auvergne.

2. ——— of Poitou, (Poitevin or Pictavian.)

3. ——— of La Vendée.

4. French Low Breton.

5. Dialect of Berri (Berrichon.)

6. Bordelais and other Gascon dialects.

} The Celtic pronunciation is still retained in these dialects.

d. Eastern dialects.

1. Dialect of Franche Comté; varieties of Bâle and Neufchatel.

2. Vaudois or Reman (Roman.)

3. Dialect of Savoy (Genevese, a polished dialect.)

4. ——— of Lyons.

5. ——— of the towns in Dauphiny.



BOOK XCVII.

EUROPE.

Physical Description of Turkey in Europe.

IT is time to give an account of those countries from which science, letters, and the fine arts, have been spread over Europe. Greece may be considered the common country of the human race, for its philosophers, patriots, and men of genius, have by their writings or their virtues contributed to the civilization of the world. Every friend of humanity must deplore the lamentable condition of that fertile peninsula watered by the Danube on the north, by the Euxine on the east, the Ægean and the Mediterranean on the south, and the Adriatic on the west. Mount Hæmus is still covered with verdant forests; the plains of Thrace, Macedonia and Thessaly yield abundant and easy harvests to the husbandman; a thousand ports and a thousand gulfs are observed on the coasts, the peninsulas and islands; the calm billows of these tranquil seas bathe the base of mountains covered with vines and olive trees. But the populous and numerous towns mentioned by ancient writers have been changed into deserts under a despotic government. Ruins and mountains attest the existence of ancient Greece.

Four or five chains extend from the regions of Upper Macedonia; the first passes northwards and reaches the banks of the Danube in the neighbourhood of Orsova, where it joins, by means of the rocks which confine the bed of that river, a branch of the Transylvanian mountains; it thus connects the Carpathian range with that of Hæmus. The second and the most considerable extends eastwards, and separates Bulgaria from Romania or Thrace;^a its steep rocks bound part of the Black Sea, and one of its branches stretches towards Constantinople and the Dardanelles; it is what is strictly called the chain of Hæmus, the Emine-Dag or Balkan of the Turks. A third chain commences, at the central ridge of Upper Macedonia, along with that of Hæmus, and extends in a southeast direction, forming the Rhodope of the ancients, or the Despoti-Dag of the Turks; a very elevated plain connects its base with that of Hæmus, and the Hebrus flows along that valley. A fourth chain, which is little known, extends towards the west; it is the Albius or Albanus of the ancients, and consists of the mountains of Bosnia and Dalmatia; lastly, a fifth branch, which bends towards the south and the southwest, is connected with all the mountains in Thessaly, Epirus, Greece Proper, and the Archipelago.

It is at present impossible to describe correctly the greater number of these chains: the notices left us by the ancients are much too vague. Mount Hæmus is compared with the Alps; but under the name of Hæmus the ancients included all the mountains which separate the feeders of the

Danube and Adriatic from the waters that flow into the Archipelago. Ptolemy traces Hæmus in this manner from the southwest to the northeast; modern travellers have observed many steep rocks and intricate passes in Hæmus Proper or the Balkan; but according to their accounts none of them are higher than the Appennines, and as the snow melts on the summits, the elevation cannot exceed seven or eight thousand feet. The ascent is gentle on the northwest side to the Gate of Trajan, a famous pass between Sophia and Philippopoli, but the descent towards the southeast is steep and rugged.

Rhodope or Despoti-Dag is steep and difficult of access; its top is covered with verdant meadows and forests; the weary traveller reposes under their shade.^b

The highest mountains are situated to the north of Macedonia in the ancient Dardania. The Scomius, at present the Dupindcha, and the Scardus, which the moderns call indifferently Schar-Dag and Monte Argentaro, form a chain, of which one writer says that he saw two summits, the Wysoka and the Rulla, that are covered with perpetual snow;^c another author insists that the range has been called Argentaro from the lustre of its sides, which are composed of selenite;^d the statements of both must be considered doubtful, until more correct observations are made in these countries. It is probable that Upper Macedonia forms, like Transylvania, a table land of an elevation of from two to three thousand feet, that it is crowned on one side by the chain already mentioned, and that it terminates on the southwest at Mount Bora. The fertile basin of Salonica is encompassed with heights which are a continuation of the same table land. Athos, a separate and majestic mountain, is not higher than 5000 feet.

Pindus, now Metzovo, is probably the nucleus of the mountains in the Greek peninsula; its rocks, forests and poetic fountains, have of late given rise to many interesting observations, but its elevation is still unknown. The numerous vallies on its sides are covered with trees; snow falls generally during the month of October on all its summits, and two of them, Dokimi and Peristera, are covered with snow almost the whole year;^e their height may be vaguely estimated at eight or nine thousand feet. The mountains of Epirus extend to the shores of the sea; Thessaly is encompassed with hills, that form an amphitheatre on which seventy-five towns were in ancient times built.^f

Olympus, or the modern Lacha, is not, according to Xenagoras, more than 5,760 feet; according to Bernouilli it is 6,120; its rugged and precipitous rocks give it a picturesque and sublime appearance; the pass of Platamona,

^a Strabo, Book VII.

^b Paul Lucas, *Deuxieme Voyage*, c. xxvi. xxvii.

^c Driesch, *Embassy to Constantinople*, p. 104. (German.)

^d Brown, chap. 15.

^e Pouqueville, *Deuxieme Voyage*, t. II. 178. 233; t. III. 46, &c.

^f Pliny, lib. IV. cap. VII.

on the north of Olympus, is encompassed with perpendicular rocks, that rise to the height of 3000 feet; the famous pass of Thermopylæ is not so imposing, but neither can vie with the one in the ancient Megaris, between the Scyronian rocks and the Saronic gulf. Dark and steep rocks hang above the sea, the waves resound beneath their base, the traveller walks along a narrow path near these precipices, and appears suspended between the ocean and the sky.^a

The steep and arid summits of the ancient Parnassus or the present Liakura are very lofty, but although they have been seen by many travellers, they have been measured by none. The middle districts of the Peloponnesus form an elevated table-land, and several mountainous groups arise from it; of these Chelmos or the ancient Cyllene is said to be the highest central point,^b and Cape Matapan or the ancient Tænarus, which extends farthest to the south, forms the southern extremity of the European continent.

The coasts of Albania descend gradually towards the gulf of Drino, and rise suddenly near the entrance of the Adriatic. Rocks are heaped above rocks, their summits reach to the clouds, their sides are rent by lightning, the sea which washes them is always tempestuous, and the shores are covered with wrecks of vessels. Such are the Acroceaurian mountains, so much dreaded by the ancients; they are now better known by the name of the Monte de Chimera.

The coasts of the Ionian islands are for the most part very steep; the calcareous rocks of Leucadia rise from the bottom of a deep and stormy sea; they were the cause of much alarm to mariners in the time of Æneas and Ulysses, and are considered dangerous even in the present day.

The island of Candia or Crete may be regarded as a continuation of the mountainous districts which extend along Greece and the Peloponnesus, and the Cyclades as the scattered fragments of two small chains, the one of which extends from Attica, the other from Eubœa; thus, as we remove from Hæmus, the range becomes gradually irregular, or terminates in detached hills and abrupt rocks; the marks of those changes and revolutions which have altered the surface of our globe are apparent in the south of Greece.

It has been maintained that there are some very high mountains in the Archipelago; a learned Greek physician declares that the summits of the mountains in the island of Andros are covered all the year with snow.^c If that statement were correct, it might be concluded that the most elevated points in the whole of Greece are situated in that island; philosophers might expect to find there the remains of an immense volcano, an Etna that has been extinguished for ages. So extraordinary a fact requires to be confirmed by better evidence before it can be generally believed; the author may have perhaps confounded these mountains with others in Eubœa.

The seas and waters which surround and intersect Greece shall be enumerated before we enter into any details concerning its soil and climate.

The Pontus Euxinus is now probably in the same state that it was in the earliest historic age; the western part is shallow, but the eastern, which is very deep, has been attempted to be fathomed in some places without success.^d The water of that sea is in many places almost as fresh as that of the rivers which flow into it.^e The greater evaporation common to river water, is the cause of the ice with which the Euxine is often covered.^f The freshness of its waters favours this congelation, so that it is often covered with ice to a very great distance from the shore.^g Shoals of fish arrive there in the spring of the year from the extremity of the Mediterranean, and deposit their spawn in the muddy and fresh water of the Euxine, where animals of prey never enter; the same shoals return to the Mediterranean at the approach of winter.^h

The Pontus Euxinus is nothing more than a vast lake; it bears all the marks of one, and flows like those in North America through a kind of a river which forms at first the narrow channel of Constantinople or the Thracian Bosphorus, then assumes the appearance of a small lake, called the Propontis or the sea of Marmora,ⁱ and passing towards the southwest, takes anew the form of a large river which has been termed the Hellespont or the Dardanelles. These channels resemble many other outlets of lakes; the great body of water that flows through so narrow an opening need not excite wonder, although it has given rise to various hypotheses.

According to M. Olivier, a range of schistus hills covered with trees, and broken only by some fertile vallies, extends along the channel of Constantinople or the Bosphorus to the village of Buyuk-Dere,^k but beyond it in the direction towards the Black Sea, both sides bear evident marks of their volcanic origin. "I observed every where," says that writer, "rocks more or less changed by decomposition, thrown together in confused heaps; also veins of jasper, carnelian, agate and chalcedony, amidst porphyry altered in the same manner. A breccia not very solid, and in many places almost decomposed, is formed by fragments of trap cemented by calcareous spar; lastly, a continuation of solid trap extends to the distance of more than half a league." It is there that Olivier and Choiseul-Gouffier place the remains of a volcano which must have opened a passage for the Black Sea. It has been proved that the substances above mentioned are not volcanic by M. Faujas-Saint-Fond, who analyzed the specimens brought to Paris; the only probable change, therefore, that has happened in the Bosphorus, is either the gradual sinking or sudden demolition of a barrier of rocks like that at the falls of Niagara. Such a revolution must have been anterior to the commencement of profane history; since that time, it may be shown from the details of Scylax and the Argonautics, that the circumference of the Pontus Euxinus has remained the same.

The Ægean Sea,^l now called by corruption the Archipelago,^m may be considered as a continuation of the great aquatic valley, of which the Bosphorus forms a defile; the calcareous coasts that bound the greater part of it are al-

^a The length of the pass is about two miles and a quarter; * Spon, Voyage, t. II. p. 171. Chandler, chap. XLIV. p. 198. Wheeler, p. 437. Pliny, lib. II. cap. 47. Pausanias, lib. I. cap. 45. Chateaubriand, &c.

^{*} "A league and three quarters (5 miles and a quarter)."

^b Pouqueville, iv. 335. 349. ^c Zallony, Voyage à Tine, p. 34.

^d Aristotle, Meteor. lib. I. cap. XIII.

^e Arrian, Periplus, ap. Geog. Minores Hudsonii, t. I. p. 8. Isidorus ex Sallustio, lib. XIII. c. XVI. Senec., in Medea, act. II.

^f Ammian. Marcellin. lib. XXII. Mem. de l'Academie des Inscript. t. XXXII. p. 639. Chardin, Voyages, t. I. p. 92.

^g Herod. ap. Macrob. lib. VII. c. XII. Tournefort, t. II. p. 130.

^h Arist. Hist. Anim. lib. VI. cap. XVII; lib. VII. c. XIX. Pliny, IX. cap. XV. Tac. Annal. XII. cap. LXIII. Ælian. lib. IX. cap. XLIX.

ⁱ Probably from the Greek word μαρμαίρω, *resplendo*.

^k Olivier, Voyage, &c. t. I. p. 62.

^l Αἰγαιος πελαγος.

^m Archipelago is perhaps an ancient and popular name: Αργειον πελαγος, *the Greek sea*, or Αργιον πελαγος, *the White sea*; according to others, Αρχι πελαγος, *the principal or royal sea*.

most every where very steep ; the rocks, of which the strata are placed vertically, as if they had been overturned, are one of the many indications of the successive changes or physical revolutions in that part of Greece. The gulfs of Salonica, Athens and several others, intersect the neighbouring continents. These phenomena had already excited the attention of the Greek geologists, but whatever physical changes may have happened in those seas, few or none have taken place since the time at which history begins to dawn, or during a period of 3000 years. The ruins of buildings, bridges, and quays,^a have blocked up the narrow strait on which Cyzicus was built, and changed the island of Cyzicum into a peninsula. Similar changes have been produced by littoral deposits that cannot be carried off by any current in small, narrow and shallow bays, like the one at the pass of Thermopylæ.

The Mediterranean, so powerful, if contrasted with the Archipelago, has however caused no alterations on the southern coasts of Greece ; the rocks of the Strophades remain erect, and the port of Pylos is neither blocked up nor contracted ; the narrow isthmus of Leucadia has been cut by the labour of man.^b If any isles among the Echinades are now joined to the continent, the cause must be attributed to the alluvial deposits carried down by the Aspro-Potamo.

The basin of the Danube includes more than a third part of Turkey in Europe ; the Drino in Bosnia, and the Morawa in Servia, enter the Danube before it reaches the cataracts near Tachtali and Demir-Kapi ; ten other feeders descend from Hæmus ; but the only considerable rivers which enter the lower Danube, as the Aluta in Walachia, and the Pruth and Sereth in Moldavia, flow from the Carpathian mountains.

The Albanian Drino discharges itself into the basin of the Adriatic, and the southern branch of that river, or the Black Drino, receives the waters of the lake Ochrida. The Boiana serves as an outlet for the large and picturesque lake of Scutari. The Aous, or the Voyoussa,^c flows from Pindus to the Adriatic.

The basin of the Maritza or the ancient Hebrus occupies the greater part of Romelia ; there is only one outlet in that elevated plain, and the Hebrus escapes by it, and after crossing a marshy lake from which its modern name is derived, enters the Archipelago. The Axios, or the Vardar of the moderns, and all the rivers of Macedonia, except the Strymon, meet in the gulf of Salonica ; a kind of delta which is formed by means of their concurrence gradually encroaches on the gulf.

The rivers in the southern peninsula, or in Greece Proper, are inconsiderable, but their classical celebrity entitles them to notice.

The plain of Thessaly is surrounded in every direction except the southeast with high mountains, and it is asked why the Peneus does not escape by the lowest side ; the cause must without doubt be attributed to some local obstacle by which its course is diverted towards the lofty heights of Olympus ; it then descends by the deep and narrow valley of Tempe into the sea. The vale extends from the south west to the

northeast ;^d its length is about forty stadia or a league and a half ;^e its breadth, although in general a stadium and a half,^f is in one place not more than a hundred feet.^g The calm streams of the Peneus water the valley under the shade of poplars or plane trees, near rocks overspread with ivy, and green and fertile hills, and encircle in their course several verdant and beautiful islands ; but its banks are suddenly contracted, rocks are confusedly heaped on rocks, and its streams are precipitated with a loud noise through a narrow pass, beyond which its waters resume their tranquil course, and mingle with the sea.

The following tradition was very generally believed in ancient times ; the Peneus, it is said, having at one period no outlet, formed a great lake, which covered a part of Thessaly, particularly the Pelasgic plain to the south of Larissa. The valley of Tempe was opened by an earthquake, the lake flowed into the sea, and the dry land gradually appeared.^h The inhabitants of that region instituted a festival to commemorate an event by which the face of their country had been changed.ⁱ But Theophrastus having observed that the climate of Thessaly was colder in his time, attributes it to the artificial channels, by means of which the stagnant waters had been drained ;^k some of the poets corroborate that opinion, and claim for Hercules the glory of having opened a passage for the Peneus. According to some authors, the deluge in the time of Deucalion extended over the whole earth ; it is more generally supposed to have been a partial inundation of Thessaly, which lasted three months ; it may be accounted for by admitting that the channel of the Peneus was blocked up either by an earthquake, during which some rocks were overturned and thus formed an effectual barrier to its course, or by excessive rains, which occasioned a sudden and extraordinary augmentation of its waters.^l

The probability of these different traditions, which are interesting in their relation to physical geography, can only be determined by new observations made in that part of Greece.

The small basin which forms the greater part of Bœotia, may give rise to inquiries of a different nature. The rivers, or rather the streams, unite in a marshy lake, called in ancient times the *Copais* ; it is surrounded on all sides by mountains, and has no apparent outlet ; had not concealed passages for the escape of its waters been formed by nature and the efforts of man, it might have covered perhaps the whole of Bœotia.^m The Copais terminates on the side next the sea in three bays that extend to the foot of Mount Ptoos, which is situated between the lake and the sea. From the bottom of each bay a number of channels extend through the mountain, some of which are thirty stadia in length, or more than a league ; others are still longer.ⁿ Deep pits were dug at equal distances on the mountain, by means of which the channels were cleared and the waters had a free passage. These works, immense as they are, must have been completed at a very remote epoch ; no information as to the period can be obtained from the earliest history or tradition. Strabo says that it was generally admitted in his time that the ground now covered by the lake

^a Strabo, liber XII.

^b Idem, liber I.

^d Pococke, t. III. p. 152.

^e "2 stadia and a half."

^f Plin., *ibid.* Ælian., Var. Hist. l. III. c. I. Voyage d'Anacharsis, III. c. XXXV. p. 377. third edition.

^h Herodot. l. VII. c. CXXIX. Strabo, l. IX. Senec., *Quæst. Natur.* l. VI.

^c Voïoussa.

^e Pliny, lib. I. 44. c. VI.

ⁱ Athen., l. XIV. Ælian., Var. Hist. l. III. c. I. Meursii *Græcia ferata*, in voce Peloria.

^k Theophr., de Causis Plant. l. V. c. XX.

^l Freret, *Memoire sur les deluges d'Ogyges et de Deucalion*, Acad. des Inscrip. t. XXIII. p. 129.

^m Strabo, l. IX.

ⁿ Wheeler's *Journey through Greece*.

was formerly very fertile, and that its culture was a source of wealth to the inhabitants of Orchomenus.^a The same writer has described the whole district. "The people in that part of Bœotia are exposed to great inconvenience from the many deep caverns and clefts below the ground; the subterranean issues are sometimes obstructed by dreadful earthquakes, or by the same cause new passages are opened. The streams are diverted into concealed channels, or changed by the sinking of the surface into marshes and lakes. Thus some towns are observed on the banks of a lake, which were formerly situated in the middle of a plain; some too have been nearly overwhelmed by inundations, and abandoned by their inhabitants, who have built others of the same name."^b

These local revolutions have given rise to many fables concerning the deluge in the time of Ogyges, king of Bœotia.

Similar phenomena may be observed on the central plateau of the Peloponnesus; many of the high vallies are completely inclosed; the Alphæus, the Erasinus, the Stymphalus, and other rivers, for want of an outlet, fall into abysses, or enter subterraneous channels, and reappear at a considerable distance on the surface of the ground.^b

The changes produced by the action of subterraneous heat have been, for the last three thousand years, local, insignificant, and wholly inadequate to account for the great devastations attributed to them in the systems of hypothetical geology. Earthquakes were not uncommon throughout Laconia, and at one time the proud Spartans were forced to implore their hated rivals of Athens to assist them in building the fallen walls of Lacedæmon.^c Helice was once a flourishing city about twelve stadia from the gulf of Corinth, but in one night it was laid in ruins, and all its inhabitants destroyed. The buildings were overthrown by repeated shocks; the sea advanced beyond the shore and inundated the city; the earth sunk to a great depth, so that only the tops of the houses were seen above the water.^d

The changes that took place in the neighbourhood of Trœzene are still more extraordinary. Strabo informs us that a tract near Methana of seven stadia in circumference,^e rose from the bottom of the sea; an igneous vapour exhaled from the ocean, and spread around a sulphureous and disagreeable odour.^f

The rocks in the island of Melos or the modern Milo are hollow and spongy; crystallizations of alum^g are suspended from the roofs of the caverns, the clefts are filled with fragments of native sulphur, warm mineral springs flow in every direction, and a sulphureous vapour rises from all the marshes; such is the account which Pliny gives of the island,^h and the accuracy of his description has been confirmed by modern travellers. The island of Argentiera is wholly composed of volcanic matter;ⁱ we are led by every appearance to believe that the small group in the vicinity was at one time the summit of a volcano.

Another group, of which the modern Santorin or the ancient Thera is the largest island, has been very often men-

tioned in the accounts of volcanoes. Pliny, who supposes that Thera was formed by a volcanic eruption, has been triumphantly refuted by Father Hardouin in his commentaries on Herodotus; abundant proofs however are not wanting as to the existence of a submarine volcano, the crater of which occupies all the basin between Santorin and the smaller islands; several islets have been formed, either by the partial submersion of this crater, or by the accumulation of substances ejected; Thera itself has been often shaken. The scoriæ, ashes and pumice stone, discharged from the volcano, have covered part of the island, and part of it has been submerged;^k but the greater portion, which consists of a large bed of fine marble, has never been in any way changed by the action of volcanic fire.^l

A few rocks, as to the names of which geographers are not agreed, have been raised or overturned by these eruptions; yet it is certain that the appearances exhibited by them must have been fully as grand as any recorded in modern times. Seneca has given a minute account of one of these eruptions, which he copied from the writings of the learned Posidonius.^m "The sea was suddenly troubled; dense volumes of smoke ascended to the clouds; a passage was opened for the flames, which appeared from time to time like flashes of lightning; heaps of stones fell in every direction; heavy rocks were discharged from the deep; others partly consumed by the action of subterraneous fire, were light as pumice stones. The summit of a mountain was at last seen, and rose to a considerable height; it increased gradually in size, and formed an island. The depth of that part of the sea is about two hundred paces."ⁿ

The most minute observations were made on the effects of the eruption that happened in 1707 and 1712. The new island, formed in 1707, frequently sunk and gave way in one direction, while it rose and became larger in another; several rocks were sometimes seen above the surface of the water, and fell again below it, but at last they reappeared and remained stationary.^o It is evident from these statements that the small islands thus formed must be considered as part of the crater of a submarine volcano.

The changes occasioned by volcanoes, if rightly estimated, are less extraordinary than others produced by the gradual sinking of the ground in different countries; some well known caverns in Greece may be mentioned to corroborate this opinion. The labyrinth of Gortyna in the island of Crete is, according to Tournefort,^p a vast cave, which passes by a thousand windings under a hill at the southern foot of mount Ida; among an immense number of alleys to which there are no outlets, a comparatively large passage has been discovered, about 1200 paces in length, which leads to a spacious hall, seven or eight feet in height; its flat roof, like the most of the strata in these mountains, is formed by a bed of horizontal rocks; the floor is level; the walls have been cut perpendicularly in some places, in others they consist of huge stones which obstructed the passage, and which have been heaped together without order; many lateral alleys terminate on both sides of the passage,

^a Strabo, l. IX.
^b Pausan., l. VII. c. XXIV. Diod. Sic., l. XV. p. 364, edit. Wessel. Plin., l. II. c. XCII.

^c Pausan., l. VIII. c. VII. XIV. XXII. XXIII.

^d Strabo, l. VIII. Thucyd., l. I. c. CI. Plut., in Cim.

^e Strabo says, *in altitude, πρὸς τοῦτον τοῦ ὕψους*, lib. I. p. 59, edit. Paris, 1620. See Book XXVIII. p. 163, of this work.—P.

^f Bougainville, Mem. de l'Academie des Inscript. t. XXIX. p. 40.

^g "Plumose alum."

^h Herod., l. IV. c. CXLV. Hardouin, in notis ad Plin., l. II. c. XXIV.

ⁱ Memoires de Trevoux, 1715, Septembre.

^k Idem.

^l Tournefort, Voyages, t. I. p. 321.

^m Senec., Quest. Nat. II. c. XXVI.

ⁿ Mem. des Missionnaires de la Compagnie de Jesus dans le Levant, t. I. p. 133.

^o Tournefort, Voyage du Levant, t. I. p. 65, &c. Belon. Observ. l. I. c. VI. Savary, Lettres sur la Grece, p. 219.

and in one part the traveller must advance more than a hundred paces on his hands and knees. This cavern, which now affords shelter for bats and other animals, is very dry; no water or moisture has been observed on its sides.

This labyrinth cannot be considered a quarry, as Belon supposes; it was originally formed by nature, and afterwards enlarged by the inhabitants, who used it as a place of refuge in time of war; Diodorus says expressly that the Cretans lived at first in caves and caverns.^a

The cave in the island of Antiparos, which is perhaps one of the most remarkable in the world, has been fully described by Tournefort; the traveller enters first into a cavern, but after having advanced a short distance, frightful precipices surround him on every side; the only way of descending these steep rocks is by means of ropes and ladders which have been placed across wide and dismal clefts; below them, at the depth of 300 fathoms from the surface, is situated a large grotto filled with beautiful stalactites; the height of the grotto is about forty fathoms, its breadth about fifty. Tournefort, who saw all the works of nature with the eye of a botanist, imagined that he had discovered a crystalline garden, which afforded him most satisfactory evidence in support of a new hypothesis on the vegetation of minerals.

There is a remarkable cave in the small island of Polycandro; all the concretions in it are ferruginous and of a reddish colour; they resemble so many *spicula*, and are very sharp and brittle; the sides, the roof, and floor of the cave, are covered with them; some are dark, others glitter like gold.

The cave of Trophonius, a long time the abode of superstition, is still to be seen in Bœotia,^b and that of Corycius is situated to the north of Delphi; although very deep, almost the whole of it is illumined by the light of day; it is so large that all the inhabitants of Delphi went to it for shelter during the invasion of Xerxes.^c Every part in the neighbourhood of Mount Parnassus abounds in caverns, which were held in great veneration by the common people; it has been supposed that mephitical vapours issued from certain spiracles, in the celebrated cave of the oracle, above which the pythoness sat on the sacred tripod; the natural effect of the exhalations was to occasion those convulsions and ecstasies which have accompanied in every age the gift of prophecy.

The lofty chains of Hæmus, Scardus, and Pindus, have not been examined by modern travellers; the barbarism of the inhabitants renders it dangerous to visit them.

It is said that near the torrents of Macedonia, many bones not unlike those of the human body, but much larger, have been discovered; in all probability they are the fossil remains of some huge animals that existed in the antediluvian world. Other discoveries, more important, perhaps, might be made, if the virgin soil in the high districts of Greece were explored by geologists; no mention is made in history of any actual volcano, but the numerous warm and boiling springs on the mountains seem to indicate their volcanic origin.

It has been seen that the elevation of the different parts of Greece is very unequal. "It results from so great an inequality," says Hippocrates, "that the region of winter is sometimes separated from that of summer by a single stadium." The heat is oppressive at the southern base of Mount

Olympus, the cold is extreme at its summit,^d and spring is the prevailing season on the sides of Pelion and Ossa.^e The soil of Greece rises in the direction of Hæmus; thus upper Macedonia and Thrace are considered cold countries, and in former times the ancients fixed there the residence of Boreas. The same mountains were once inhabited by brave and independent men; their descendants resisted despotism more effectually than the rest of the Greeks; such facts connected with the history and the character of nations are not uninteresting; the Sarri or the people of the mountains in Thrace, retained their freedom for a long time;^f hordes of Turcomans, who cannot be said to have ever submitted to a foreign power, now inhabit these districts and Macedonia.^g The Illyrians resisted the Macedonian kings and the Roman legions; if the Arnauts or Albanians, who wander in the same regions, be not regularly paid, the Turks cannot depend on their services. The Christian Albanians of Suli rendered themselves illustrious by their heroic achievements during a war that lasted ten years. Although the Greeks at Constantinople and Salonica are effeminate and degraded, the mountaineers are not so easily subdued, their ancient courage is not wholly lost, their love of freedom is not extinct. It is needless to mention the Mainote band, so often cited to confirm what has been said; but it is not perhaps generally known that the brave and industrious inhabitants of Ambelakia, a small Greek town on the side of Ossa, above Tempe, have often repelled the Ottoman troops, and never suffered a Turk to remain in their district. The Sphachiotes, or the people on the White mountains of Crete, have recently yielded to their enemies; their subjugation was the effect of civil dissensions, not of the Turkish arms: had the ardour and impetuosity of such men been restrained, had they been better disciplined before they raised the banner of independence, the liberators of Greece might have descended from its mountains. The other inhabitants of the same districts are the fierce and mercenary Albanian, the fanatic Mussulman of Bosnia, and the Servian ready to defend his own possessions, but indifferent about his neighbour's; it is consolatory amidst such disadvantages to reflect that a country like Greece, intersected with mountains, numerous passes and gulfs, contains within itself the elements of freedom.

Greece is situated between two seas, and is not for that reason exposed to excessive droughts; but the cold is often more intense than in Italy or Spain, and the cause is owing to its being connected on two sides with the great mass of the continent, the temperature of which in equal parallels is always lower towards the centre, and also to its proximity to two great mountainous chains, those of Hæmus and Taurus.

The ancients have left us a full account of the prevailing winds in Greece, and of their influence on the seasons; according to Aristotle, none was so prevalent, so dry and serene as the north wind; it was often the forerunner of hail and sometimes of storms; but, although dry in the rest of Greece, it was considered a rainy wind in the neighbourhood of the Hellespont and on the coasts of Cyrenaica;^h the same wind is cold and boisterous after passing mount Ida; the ancients thought that it checked the epidemical diseases which devastated Mitylene, and were attributed to the continuance of the south and north-west winds.ⁱ The

^a Diod. Sic., l. V. p. 334, edit. Wessel.

^b Gordon's Geography, p. 179, edit. 1733. Pausan., l. IX. p. 791, edit. Kuhn. 1696.

^c Herod., l. VIII. c. XXXVI. Pausan. l. X. c. XXXII. Eschyl., in *Eumen.* v. 23.

^d Sonnini, Voyage, t. II. p. 294.

^e Felix Beaujour, *Tableau*, &c. t. I. p. 251.

^f Herod., l. VII. c. III.

^g Felix Beaujour, t. I. p. 325.

^h Arist., *Meteor.* l. II. c. VI. probl. 26.

ⁱ Vitruv., l. I. c. VI.

northeast wind prevails about the vernal equinox; it drives the clouds slowly before it, and is the harbinger of rain in Attica and in the islands of the Archipelago, where it is surcharged with the mists that rise from the Euxine; but from its having passed above cold countries, it is often accompanied with frost in Walachia and Moldavia. The east wind, on the contrary, is announced by gentle and refreshing breezes. The southeast wind blows about the winter solstice; warm and dry at first, it becomes gradually humid, and at last brings on rain; Lucretius considered it the cause of the plague which desolated Attica during the reign of Cecrops.^{a, b} The south wind prevails in Greece about the end of autumn, after the winter solstice and at the beginning of spring; some of the ancients supposed it favourable to vegetation, others thought it unhealthy, and the forerunner of pestilential diseases; at all events, it is followed by violent and continued showers. Empedocles had observed that the flames of Etna were always most vivid while the wind blew from the north, and that they became dull and obscure as soon as the dark clouds indicated the approach of southern blasts.^c Dense vapours rise from the Mediterranean; the excessive moisture brought by the south wind in Greece and Italy is collected in its passage above that sea; the same breezes that proceed from Mount Atlas and other inland chains are cold and dry in some parts of Africa.^d

The Zephyr is generally associated with the descriptions of the Greek writers; Aristotle calls it the gentlest of the winds; according to Homer, it reigns in the Elysian fields,^e inhabited by the blessed, governed by Rhadamanthus, and never exposed to the cold of winter; but the same poet, in another part of his writings, places the zephyr near Boreas, and considers it stormy and unhealthy.^f That apparent contradiction is reconciled by the concurring testimony of the ancients and the moderns; it has been shown that the zephyr near the entrance of the Hellespont, or the scene of the Iliad, is frequently boisterous; the storms occasioned by it have been fatal to seamen. Hippocrates declares that the zephyr is a very unwholesome wind in the island of Thasos,^g and it is commonly accompanied with rain on the coasts of Greece; Vitruvius says expressly that the northwest wind, which is not far removed from the zephyr, and included by the ancients under the same denomination, gathers thick mists on the Archipelago, and is unhealthy on the coasts of Lesbos opposite Troas.^h

The northwest wind is very different in different parts of Greece; cold and dry at Chalcis in Eubœa, where it blows a short time before or after the winter solstice, it scorches vegetation, and burns the trees more effectually than the summer's heat;ⁱ it proceeds to Eubœa from Olympus, and is sometimes called by the name of that mountain; but its qualities are changed in its passage across the Egean sea;

^a Lucret., de Rerum Natura, VI. verse 1136.

^b This is a very singular mistake. The plague here referred to, was the celebrated plague of Athens, during the Peloponnesian war, so ably described by Thucydides. The cause of the mistake may be found in the passage quoted:

Hæc ratio quondam morborum, et mortifer æstus,
Finibu' Cecropiis funestos reddidit agros—
Nam penitus veniens, Ægypti e finibus ortus,
Aëra permensus multum, compositque natanteis,
Incubuit tandem populo Pandionis—

Here Lucretius simply states that the plague originated in Egypt, and after having crossed the sea, invaded the Cecropian territories, i. e. Attica.—P.

^c Strabo, Geog. l. VI.

^d Arist. Probl. l. XXVI. 16. 51. Herodot. l. IV. Aulus Gell. l. VI. c. II. Lucan. Phars. IX. 447—497.

according to Theophrastus, it is rainy at Cnidus and in the island of Rhodes.

The etesian winds were considered by the ancients the most remarkable of the periodical winds in Greece; Aristotle and Lucretius tell us that these refreshing breezes were felt after the summer solstice, and the rising of the Canis Major;^k they blew from the west of north in western climates, and from the east of north in eastern expositions. Aristotle says that they blew during the night and ceased during the day, from which it might be inferred that they were land winds; Posidonius affirms that they were common within that part of the Mediterranean between Spain and Sardinia;^l Pliny assigns them the same course in Spain and Asia; Aulus Gellius, observing the contradictory statements of different authors on the subject, sets them all right, and concludes that the etesian winds blow from different directions.^m

The Ornithian windsⁿ were so called, because about the time they began, many birds of passage arrived in Greece; they are sea breezes, which commence in spring, about seventy days after the winter solstice; they are mild, variable, and of shorter duration than the etesian winds; it appears from Pliny's description that the Greeks comprehended by the ornithian winds, all the breezes from the Mediterranean; their direction varying according to that of the coasts, might include several points of the compass between the west and southeast.

The narratives of modern travellers accord, on the whole, with the ancient accounts which have now been stated; one example shall be cited. "During the summer," says Galant,^o "a west wind prevails in the neighbourhood of Smyrna; it begins about ten in the morning, and continues increasing till four in the evening;" (that sea-breeze must be nearly the same as the ornithian zephyrs described by Pliny.) "In the same season the *tramontane* or north winds prevail throughout the Archipelago." Such are the common etesian winds, by which Tournefort was carried in nine days from Marseilles to Canea.^p

The temperature of Greece varies greatly in different districts; it might be said that the climates of all the regions in Europe are concentrated in that country. The waters of the Danube and the Hebrus are frozen in winter; the Russians who crossed Mount Hæmus had recourse to their furs to protect them against the cold;^q but on the other hand, spring and summer are almost the only seasons on the coast of Attica. "The notes of the nightingale are heard in verdant valleys where the cold of winter is unknown, and its rude blasts never felt; the branches of fruit trees encircled with ivy or the tendrils of the vine shelter these valleys from the burning rays of the sun. Bacchus and his joyous votaries wander in the groves; the narcissus and the glittering crocus, which adorn the wreaths of the gods, are always in

^e "Fortunate Islands."

^f Iliad, IX. 5. Odyss. V. 295. Ibid. XII. 289.

^g Hippocr. Epid. l. sect. 2. n. 12, &c.

^h Vitruv. l. VI. c. VI.

ⁱ Theophrast., Hist. Plant. l. IV. c. XVII. et de Causis Plant. l. V. c. VI.

^k Arist., Meteor. l. II. c. V. and VI. Lucret., V. 741. Polyb., l. IV. Diod. Sic., l. I.

^l Posidonius, quoted by Strabo, l. III.

^m Plin., l. II. A. Gellius, Noct. Attic. l. II. c. XXII.

ⁿ Ornithiæ, from *ornithes*, birds.

^o Hist. de l'Académie des Sciences de Paris, 1688, t. II. p. 38.

^p Tournefort, Voyage au Levant, t. I. lettre I.

^q Travels of the Russian Embassy.

flower. Venus and the muses meet on the magic banks of the Cephissus; its winding streams, flowing through a thousand channels, water fertile meads.^a

If the island of Milo be excepted, which is rendered unhealthy by sulphureous vapours, the climate of the Archipelago is perhaps the finest in Europe; the temperature is more uniform than on the continent, and the corn is sooner ripe in the island of Salamis than in Attica.^b Although Crete is situated under the 35th parallel, it is only exposed to excessive heat while the south wind prevails; it often happens that these winds are not sufficiently strong to cross the mountains which shelter the island; when that is the case, the weather is delightful. Savary tells us that the greatest range of the centigrade thermometer^c from the month of March to November was between 20° and 27° above zero. Snow or ice is never seen in the plains; in the month of February the fields are covered with flowers and harvests.^d

A great difference may be observed in the vegetable productions of the provinces included within the basin of the Danube, and of those on the south of Mount Hæmus. In the southern provinces, the mountains' sides are crowned with forests; travellers have remarked among the numerous trees the common fir, the yew-leaved fir, the larissio pine, the cedar, the holm, the scarlet^e and common oak, the lofty eastern plane, the maple, the carob, the sycamore, the beech, the walnut and the chestnut. No accurate observations have hitherto been made concerning the levels at which each plant begins; it is probable that the zones of vegetation bear some resemblance to those in Italy and Sicily, but the northern flora descends farther to the south than on the Appennines. The forests on Mount Hæmus do not exhibit the same variety of species; the most common trees towards the north are the oak, the elm, and the lime; the carob, the sycamore, and the plane, never grow north of Mount Hæmus, unless they be forced by artificial means or cultivation. The heights on the Danube are clad with apple, plum, cherry, and apricot trees; whole forests of them may be seen in Walachia; they extend beyond the chain of Hæmus, and cover the high hills in Thrace, Macedonia, and Epirus. The olive and the orange trees thrive beyond the 40th parallel near the sea, but never flourish in the interior; the cold of the mountains is too severe: the climate to the south of the same parallel is wholly different. The apple and pear trees disappear; the olive now becomes the most common fruit tree, and the extensive plantations which adorn the coasts of Attica and Crete are interspersed with the laurel and the large-leaved myrtle. The orange, the fig, the pistachio, the mastich or *Pistacia terebinthus*, the mulberry and the pomegranate grow in rich luxuriance; some of them, as well as

the olive, which was observed by Tournefort, growing spontaneously on the sides of Mount Ida, are supposed to be indigenous to Greece.^f

The shrubs assume a different character;^g the finest are the rose laurel and the caper bush; the one follows the winding course of streams, the other is seen in groups among the rocks; the cherry laurel, and two kinds of arbutus, the *Unedo* and *Andrachne*, are frequently observed in the same part of the country. The soil of Greece is in many places calcareous, and the plants best adapted for that kind of ground are most abundant; thus the mountains of Crete are covered with the *Stachys cretica*, the thistle-leaved acanthus, the prickly endive,^h the *Origanum dictamnus*, or the dittany of Crete, and the *Astragalus tragacantha*, which yields the gum tragacanth; the genuine laudanum of the east is obtained from the *Cistus creticus*, which is cultivated and grows in a wild state in the islands of the Archipelago. Aromatic and resinous plants are abundant; the lentisk and mastich trees appear nowhere in such profusion or in so great perfection as in the island of Delos. The carnation shrub,ⁱ the *Eichen parellus*, from which the inhabitants extract a delicate red dye, called *archil*, and many other plants that cannot be enumerated in a geographical work, are considered indigenous to the Archipelago and the neighbourhood of Constantinople. It may, however, be remarked, that the grapes are very different on the banks of the Danube and on the shores of the Archipelago; in the latter country they contain a great quantity of saccharine matter; those of Walachia are watery and acid; strong and generous wine might be obtained from the vineyards in Servia and Hertzegovina; they are sheltered from the cold of winter and the scorching heat of summer; were greater attention and more labour bestowed on the cultivation of the grape, the vineyards in European Turkey might not be inferior to the finest in the world.

The vegetable productions of the south and north, appear near each other on the shores of the Bosphorus. According to M. Olivier, the most common plants are the chestnut tree, the *Quercus racemosa* of Lamark, the cypress, the lime, the arbutus, the myrtle, and the genista. The *Convolvulus Persica* flourishes in the low and sandy plains; the *Diospyros lotus* is considered a delicacy by the Turks. The coasts of Gallipoli are covered with the *Clematis cirrhosa*, the *Daphne cretica*, a beautiful shrub, and the *Spartium parviflorum*, which grows generally to the height of five feet. The transition between the vegetation in the north and south of Turkey, might be best observed in the interior of Thrace and Macedonia, but these provinces have not as yet been visited by botanists. It is besides very difficult to distinguish the plants that have been added by cultivation from such as are indigenous; the

^a Such is M. B.'s translation of a passage in Sophocles. We subjoin the more correct and literal version by Potter.

STRO. I. Where sadly sweet the frequent nightingale
Impassion'd pours her evening song,
And charms with varied notes each verdant vale,
The ivy's dark green boughs among;
Or shelter'd 'midst the clustering vine,
Which high above to form a bower
Safe from the sun or stormy shower,
Loves its thick branches to entwine;
Where frolic Bacchus always roves,
And visits with his fostering nymphs the groves.

ANTIS. I. Bathed in the dew of heaven each morn,
Fresh is the fair Narcissus born!
Of these great powers the crowns of old,
The crocus glitters robed in gold.
Here restless fountains ever murmur'ing glide;
And as their limpid streamlets stray

To feed, Cephissus, thy unfailling tide,
Fresh verdure marks their winding way;
And as their pure streams roll along
O'er the rich bosom of the ground,
Quick spring the plants, the flowers around;
Here oft to raise the tuneful song,
The virgin band of muses deigns;
And car-born Venus guides her golden reins.

ŒDIPUS AT COLONOS.

^b Theophrast., Hist. Plant. I. VIII. c. 8.
^c In the original, no particular thermometer is mentioned. The centigrade would correspond to 68° and 80° F.; Reaumur's, to 77° and 93°—R.

^d Savary, lettre XXXI.

^e "Chene à cochenille," Kermes oak, (*Quercus coccifera*, L.)

^f Voyage dans le Levant, tom. I. p. 19.

^g "The shrubby labiate plants are the predominant species."

^h *Cichorium spinosum*, L.

ⁱ *Dianthus arboreus*, shrubby pink.

names made known to us by ancient writers are of doubtful signification. M. Olivier states that a palm tree is marked on the reverse of several of the medals that have been found in the island of Nio, and yet that the palm is not at present a production of the island; that plant has been observed in but few places throughout the Archipelago, and those that grow in Naxos, in Scio, and in Crete, never bear fruit.^a The Greeks borrowed the impression of the palm tree on their pieces of money from the Phœnicians, or at least from their mythology; at all events, it has no connexion with the flora of the Archipelago.

It is not our purpose to examine minutely the animal kingdom in European Turkey; it might be a difficult task to classify the different species. The Thessalian horses were prized for their symmetry and strength; the Turks imported a Tartar breed, and by crossing these two kinds both have been improved; a great many horses are bred in Moldavia, but those in the mountains are the most valuable; although small, they are not inferior in strength and speed to the Russian horses; those on the plains are larger but not so swift; herds of wild horses roam on the frontiers; many of them are killed to supply the inhabitants with food. The cattle in Walachia and Greece are large and strong; more than thirty thousand oxen are annually exported from Walachia to Bosnia, and the most of them from the last country to Constantinople. The pastures and meadows are of a rich and excellent quality; many thousand oxen and numerous flocks of sheep belonging to the inhabitants of neighbouring states are fattened on them every year.

Sheep abound in Walachia, Macedonia, Thessaly, and Livadia; but the goat is a more valuable animal to the people on the mountains. The best feathers on the Turkish arrows, were taken from the plumage of the large eagles, which are so numerous in the neighbourhood of Babadagi. The wild boar, the roe, and fallow deer, frequent the forests and the mountains; the carnivorous animals are the fox, the wolf, and the bear; a species of wolf, smaller than that on the hills, has been observed on the plains; it haunts the banks of the Danube, and finds shelter near the marshes or among the reeds on the sides of the lakes that communicate with the river. The partridge and the bustard abound in the neighbouring plains; although game is not so plentiful in Greece and the islands, they are well supplied with different kinds of fish.

The lion was not uncommon at one period in the same country; it frequented, in the time of Aristotle, the region between the Achelous, in Acarnania, and the Nessus, in Thrace, which is by no means the warmest part of Greece; the natives might have prevented it from extending beyond these districts, and at last succeeded in destroying it, but it is not improbable that the Greek lion belonged to a different species peculiar to Greece and Asia Minor.^b

A particular sort of bee in Walachia is smaller than the common one; its wax, which is of a greenish colour, is different from the ordinary kind; it is deposited on shrubs by these industrious insects; candles and tapers are made of it, and they emit, in burning, an aromatic fragrance.

^a Theophr. Hist. Plant. III. c. V.

^b "Perhaps it was a variety peculiar to Greece and Asia Minor."

^c Herod., I. V. c. XVI. &c. I. VII. c. CXIII. Thucyd., I. II. Strab., I. VII. Epist. Ovid., Fast. I. III. verse 739. Some emeralds and pieces of silver which had been taken from one of these mines were shown to La Condamine in 1781. Abreg. des Mem. de l'Acad. des Sciences, t. VII. p. 45.

^d Xenophon, Rat. Redit. p. 924, edit. Paris, 1625. Strabo, I. IX.

^e Plin., I. XXXVI. c. V. and XIII. Steph. de Urbibus, in Marpes. Strabo, I. XI.

The moderns know little of the mineral productions in Turkey; the Ottomans have no relish for such pursuits; small pieces of gold are found in the beds of the Walachian rivers, and are collected by the Gypsies or Zigeunes; the same province abounds in fossil salt, and the minerals of Walachia and Moldavia are analogous to those on the Carpathian mountains. Mines rich in iron extend along Hæmus, Scardus, and the Albanian and Bosnian chains; these mountains may be considered a continuation of the range in Stiria or the ancient Noricum; their component parts are probably the same. Some rocks, consisting of mica, talc, and granite, have been vaguely indicated by travellers; ancient writers have informed us that the precious metals were worked in some places on these mountains; it is likely that the ore extracted from them was copper mixed with gold and silver.

Mount Pangæus, in Macedonia, was famed for its gold and silver mines, which extended to Pæonia or beyond the river Axios; the Pæonian husbandmen even turned up pieces of gold with the plough.^c The silver mines of Laurium, which Xenophon considered inexhaustible, but which were exhausted before the time of Strabo,^d lie near the sea shore at the extremity of the Attic peninsula; few rich mines have been discovered in such situations.

The best ancient marble, or at least that which was most prized, was taken from the quarries on Mount Marpeus in the island of Paros; large blocks of it used in erecting the public monuments in the Greek towns have remained entire for ages; the front of the labyrinth in Egypt was built of that marble,^e which was exported to different countries; the ancient sculptors preferred it to every other kind; if, however, we judge of it from the accounts of modern travellers, its quality does not always correspond with its celebrity. The crystalline laminae of which its grain is composed, fly asunder at the stroke of the chisel;^f its great lustre, its pure whiteness, and other advantages, are perhaps more than sufficient to compensate that defect. In some of the ancient statues, a kind of marble has been observed not unlike ivory;^g it has not been discovered in its native state in Greece or any other country by the moderns. The Pentelic marble derives its name from a mountain in the neighbourhood of Athens; it is at present distinguished by the green veins that separate the masses from each other. Mount Hymettus is at a short distance from Mount Pentelicus; its marble is of a whitish gray colour; it was used by the Greek statuaries.

The bole or *terra sigillata* of Lemnos, is an ochreous argil formerly used in medicine; cimolite or the potter's clay of Cimolus, is also an argil of a grayish white colour, but becomes reddish by being exposed to the air; Hawkins found it in the island of Argentiera, or the ancient Cimolus; it was exported by the Greeks, and employed in fulling and whitening different kinds of cloth, a purpose for which it is admirably adapted.^h

Mines of copper mixed with iron were wrought in the island of Eubœa; the gold and silver mines of Siphnos, or the modern Siphanto, were swallowed up by the sea.ⁱ The

^f Tournefort, Voyage, t. I. p. 202. Haüy, Traité de Mineralogie, t. II. p. 163, 164.

^g "Marbre corallitique."

^h Haüy, t. IV. p. 446. Olivier considers it a porphyritic rock, in a state of decomposition, t. I. p. 323. Plin., Hist. Nat. I. XXXV. c. XVII. Hill on Theophrastus, p. 204, Paris, 1754.

ⁱ Pausan. I. X. c. XI. Steph. de Urbibus, in Siphno.—[The story is thus told by Pausanias. "The Siphnii had made a vow to consecrate the tenth of the produce of their mines to Apollo; but having neglected their

same island is rich in lead ; its smooth and gray ore is seen in many places after continued showers ; in appearance, says Poccoke, the metal resembles tin.^a The island of Thasos was remarkable not only for its fine marble quarries, but for a famous gold mine ; and a promontory in Naxos is called Cape Smeriglio, because emery of the best quality is obtained from it. Asbestos, sufficiently long and flexible to be converted into incombustible cloth, was extracted from the quarries on Mount Ocha.^b

Bituminous springs are observed in many parts of Greece ;

but the one most worthy of notice is situated in the island of Zante, or the ancient Zacynthus ; the land appears to be hollow, and resounds under the feet of the passenger ; two basins, from fifteen to twenty feet in diameter, are partly filled with cold and limpid water ; liquid bitumen rises from each of them, and floats on the surface ; a thermometer of Reaumur's was plunged by Spallanzani into one of the pools ; its temperature before immersion indicated 24°, but it descended immediately afterwards to 17° ; the same spring was visited by Herodotus 2300 years ago.

engagement, the god, in his anger, destroyed the mines by an inundation—
 επικλυσσα η θαλασσα αφανη τα μεταλλα σφισιν εποησιν.—P.

^a Poccoke, Voyage, l. III. c. XXIII.

^b Strabo, l. X.

BOOK XCVIII.

EUROPE.

Portion of European Turkey to the south of Mount Hæmus and the east of Pindus. Islands.

It is unnecessary to adhere to the divisions established by the Turks in our account of the provinces which compose the Ottoman empire; such divisions are artificial and for that reason ill adapted for a geographical work. Moldavia, Walachia, Servia, and Bosnia, are each of them separate states, and at the same time political and natural divisions; Bulgaria is also a natural and ethnographical division, but not a political one. Thrace Proper corresponds with Rumania as it is marked on the maps, but in the present day neither the one nor the other forms a political or ethnographical region; they shall however be considered as a distinct region in their relation to physical geography; the same may be said of Macedonia. Albania and Greece constitute, each of them, both a physical and an ethnographical division. The tables at the end of the book may throw some light on the subject of Turkish statistics.

The celebrated city of Constantine is the capital of the empire; it has been seen in the history of geography, that it was first a Thracian village known by the name of Lygos, then the Greek colony of Byzantium, and afterwards the new capital of the Roman empire under the pompous title of *Nea Roma*, or New Rome, but custom or servility substituted that of *Konstantinou-Polis*, which it still retains. The peasants in the neighbourhood, while they repaired to Constantinople, said in the vulgar Dorian Greek, that they were going *es tan bolin*, or to the city;^a hence the Turkish troops have given it the name of Estamboul,^b but the more polished or less barbarous inhabitants call it frequently Konstantinieh. It is denominated in the Russian annals Zaregorod or the royal city, and the Bulgarians and Walachians term it at present Zaregrad. The Icelanders and the Scandinavians knew it in the tenth century, by the name of Myklagard, or the great city, and it has been distinguished by the venerable title of Islam-Bol, a half Turkish and half Greek term, which signifies the city of the faith. Constantinople is built on a triangular promontory, and divided by seven hills which are washed on the south by the sea of Marmora, and bounded on the north by a small gulf, called by the ancients the Golden Horn, that forms a safe anchorage for twelve hundred ships. The walls round the city are in the same position as those which the consul Cyrus Constantinus built by command of Theodosius the Second, and their circumference is nearly the same, for Chalcondylas states their circumference at 111 stadia, and Gyllius at about thirteen

Italian miles, but according to the best modern plans of Constantinople, it is not less than 19,700 yards.^c The ancient Byzantium was forty stadia in circumference, it extended towards the interior to the Besestan or the great market; the outline established by Constantine the Great did not extend as far at every point as the present circumference. The city has now twenty-eight gates, fourteen on the side of the port, seven towards the land, and as many on the Propontis.^e

The view round the city has been much admired; its elevated position, the great number of trees, houses and minarets, the majestic entrance of the Bosphorus, the spacious harbour surrounded by the suburbs of Galata, Pera, and St. Dimitri, the large city of Scutari in front, the verdant hills behind it, the Propontis and its picturesque islands, Mount Olympus in the back ground, its snowy summits, and the fruitful fields of Asia and Europe on every side, present a succession of the finest landscapes. The stranger observes not without emotion the natural beauties in the neighbourhood, and admires the excellent position of a city that may be so quickly supplied with provisions, and so easily defended in the event of a siege; from its safe and commodious harbour, it seems destined by nature to reign over two seas and two continents; but the first impression is soon effaced by examining the interior. Constantinople is ill built; the streets are narrow, and no part of them is well paved; its irregular and pitiful houses are like Turkish barracks or clay and wooden cottages; conflagrations are of ordinary occurrence, and the plague breaks out every year. The moral feelings of the stranger are outraged; the haughty and solemn air of the Mussulman is contrasted with the humble, timid and lowly mein of the Jew, the Greek, and the Armenian; a foreigner, before he is aware of the difference in their dress, may discover from a man's appearance whether he is a Mussulman or a raja.^f The Fanar, which forms a part of the town, is inhabited by the wretched descendants of the Byzantine families; these degraded men crouch under the Mussulman's sword, assume the titles of princes, and cheapen the temporary sovereignties of Walachia and Moldavia; faithful representatives of the Low Empire, submissive to every power, to amass wealth is the sole business of their lives; by honest or dishonest means is to them equally indifferent.^g

The seraglio or the principal palace has been considered a great ornament to the town; it must be confessed that the view from the side near the Bosphorus is romantic, but the building is a confused mass of prisons, barracks and gar-

^a Scot and Maittaire. The Dorian was spoken by the Byzantines.

^b Stamboul or Istamboul.

^c Pet. Gyll. Topograph. Constant. l. IV. Hammer, Constantinopolis under the Bosphorus, Vienna, 1821

^d "9800 toises."

^e Ducange says that there are thirty-three gates, but he counts some of them twice; his details are inaccurate. M. Le Chevalier, on the other hand, takes no notice of several new gates. Hammer, l. p. 100.

^f *Rajah*, unbeliever—so the Turks call all who are not Mahometans.

^g Zallony, les Fanariotes, (Paris, 1824.)

dens ; it forms a separate city, the seat of Asiatic debauchery and African slavery ; honour, generosity, compassion, the best feelings of our nature, are banished from its walls.^a

One venerable monument of antiquity, the church dedicated to divine wisdom by the emperor Justinian in the sixth century, now vulgarly called St. Sophia, has fortunately been spared ; but it is certain that it must have been demolished had it not been converted into a mosque ; its effect is imposing, although the style of architecture is much inferior to that which distinguishes the classical epoch. The ancient Hippodrome is now a public walk ; the Cyclobion, or the modern castle of the seven towers, is but a weak citadel, in which the ambassadors of the powers at war with the Porte are confined. The most remarkable mosques are those of the Sultan Achmet and the Sultana Valide, and another called the Solimani ; such are the principal edifices ; they are seen to the greatest advantage when the whole city is illuminated ; they might add perhaps to the beauty of the landscape, but when examined singly they appear without majesty and without grace. We are apt from their frail and clumsy appearance, to connect them with the works of men in the pastoral state.

Dallaway supposes that there are 88,185 houses, and 400,000 inhabitants in Constantinople ; Eton diminishes the last number to 230,000 ; Kinsbergen increases it to 600,000, but includes the population of Galata and Pera ; Andreossy concludes from the consumption of bread, that the number of souls amounts to 597,700 ; it is obvious, however, that these calculations are founded on uncertain or imperfect data. It is said that there are 130 public baths, 600 mosques, 518 *Medresses* or schools, and 35 *Kuttub-chans* or public libraries. The above statements are taken from the work of a learned orientalist, but it appears from his own researches that they cannot be considered accurate.^b

It is stated that before the last war the value of the wool annually exported to Marseilles from Constantinople amounted in some years to £62,500, and in others to £84,000. It was brought to the Porte from the Bosphorus, the Propontis, the Hellespont, Anatolia, Romelia, Bulgaria, Bessarabia and the southern coasts of the Black Sea. The merchants of Constantinople sent every year to the same place 600 bales of cotton, five or six thousand buffalo hides, and about two or three thousand hides of oxen. England is at present the great mart for these articles ; some of them, but the number is inconsiderable, are exported to Austria. The silk used in the manufactories of Bursa, Constantinople, and Scio, is procured from the neighbourhood of the former city and of Adrianople, and from Bulgaria ; a small quantity is exported by the Franks ; the other exports are wax, boxwood, copper from Asia Minor, orpiment, deers horns, fur, hair, gall-nuts, and corn. The Turks import sugar from Egypt, and prefer it to that from the West Indies.^c

Pera and Galata, two large suburbs, are situated beyond the harbour of Constantinople, which is about 6000 yards in length, and from 300 to 500 in breadth.^d Pera is built on a height ; it is the residence of the foreign ambassadors and the Europeans, who are not permitted to remain at Constantinople ; the great warehouses and granaries are situated at Galata, which is nearer the port and the customhouse ; it is surrounded with ditches and walls flanked with bastions.

The inhabitants of these suburbs consist chiefly of foreigners from all nations ; their number is so great that Pera and Galata have been compared to the tower of Babel ; the languages spoken are the Turkish, Greek, Hebrew, Armenian, Arabian, Persian, Russian, Walachian, German, French, Italian, and Hungarian. The degenerate Greeks surpass all the strangers in espionage and political intrigue.

A great many villages almost concealed by lofty trees are scattered along the shores of the Bosphorus ; it is there that the *Bechick-Tadch*, or the summer palace of the Sultan, is situated. Belgrade appears at a distance behind it, and is inhabited in one season of the year by the most wealthy Christian families in Pera and Galata ; it is sheltered from excessive heat, the air is pure and salubrious ; an extensive plantation of fruit trees, verdant meadows and limpid streams adorn the immediate vicinity ; the town is not exposed to the plague or the frequent fires that happen in the capital ; if the country were under a better government, almost every part of it might be as delightful as the neighbourhood of Belgrade. The suburb of Ayoub lies beyond two portions of Constantinople allotted to the Greeks and the Jews, and at no great distance from the Fresh Water walk, one of the finest near the city ; the harbour there is comparatively narrow, and not unlike a large river.

It is unnecessary to give so full an account of the other Thracian towns. The numerous minarets of Adrianople or *Edrineh*, the second city of the empire, rise above groves of cypress and gardens of roses ; the Hebrus, increased by many tributary streams, flows past the town as it turns southwards and descends from the central table land ; the population of Adrianople is not less than 100,000 souls. "The Maritza, such is the modern name of the river, waters a sandy soil, the Arda runs westward through a rocky country, and the Tundscha through light but not unfruitful lands ; all these rivers overflow their banks in winter."^e This is all the information we have derived from the most celebrated Turkish writer, information which may convince us of the darkness that envelops the modern geography of Thrace ; but that country is rich in vineyards, corn, and wood ; the ancients extolled its mountains more than any on the earth ;^f at present there are not more than five or six public roads in the whole region.

The towns on the road which extends towards Sophia or to the northwest are Filibeh or Philippopolis and Tartar-Bazardgik ; the first, according to Palma, is a flourishing and commercial city with a population of 30,000 souls ; its trade consists in woollen goods ; the second is peopled by 10,000 individuals ; both these towns are built in a large and very fertile valley ; the fields and orchards are watered by the numerous feeders of the Hebrus. The pass which Ammianus Marcellinus calls Succi and the Turks Sulu-Derbend, is situated at the junction of Mount Rhodope and Hæmus ; it separates Thrace from Bulgaria. The descent towards the plains of Filibeh is much steeper than on the side of Sophia ; the ruins of a gate, said to have been erected by Trajan, are still to be seen.^g Another pass, or the *Kis-Derbend*, leads to the southwest by *Samakow* in Upper Macedonia, a place famous for its iron mines. Such are the great military and central positions which command European

^a Melling, *Vues de Constantinople*. Chateaubriand, *Itineraire*.

^b Hammer, *passim*.

^c Olivier, *Voyage dans l'Empire Ottoman*, 4to. p. 19. 193. 196. 198, &c.

^d "Length 3000 toises, breadth 300 to 500."

^e Hadgi Khalfa, *Romelia*, translated by Hammer.

^f Lucian, *Drap*. "Rigore fertilis," says Pliny, XVII. 4.

^g Ammian. Marcell. XXI. 10. Driesch, *Voyage à Constantinople*. Another pass on the north is known by the name of Capouli-Derbend ; it branches from Sulu-Derbend.

Turkey; the base of the mountains is marked by many thermal springs of a very high temperature.

Several routes extend to the north from Adrianople and cross Mount Hæmus, which on that side is not very lofty; these roads are surrounded by rocks or verdant and sloping hills; snow has never been seen by modern travellers in any part of the journey from Constantinople to Schumla, but there are numerous defiles fortified by natural walls. The pass of *Demir-Kapu* or the Iron Gate, and the one between *Kaisanlik* and *Loficha*, in Bulgaria, are situated between high mountains. Zagora, a country wholly unknown to the moderns, is encompassed by branches of the Hæmus; it has been peopled since the ninth century by the Bulgarians, and a Roman road passed through it in a direction nearly parallel to the mountains. The descendants of the Paulianists, a Bulgarian and catholic people, reside probably in the vallies of Zagora,^a and it is not a little remarkable that no traveller of the present day has visited a country so interesting on account of its ancient monuments and historical associations. The towns to the north of Adrianople are *Tchirmen* the residence of a *Sandjak*, and *Eski-Sagra*, which contains 10,000 souls; the fields of *Selimnia* are covered with hemlock.

Hæmus becomes lower towards the northeast, and forms the range of Strandschea, or a continuation of calcareous heights, which separates the central table-land of Thrace from the shores of the Black Sea. *Kirk-Kilissi*, a considerable town, partly peopled by a colony of Jews who speak bad German, and supply the market of Constantinople with butter and cheese, is situated on the side of the mountains next the interior,^b and the Turkish geographer places *Indchiguis* on the hills of the Strandschea, which extend in the direction of Constantinople; it is inhabited by *Troglodytes*, its numerous dwellings are cut in solid rocks, stories are formed in the same manner, and many apartments that communicate with each other; few such places exist in the world; it is more remarkable than those of the same description in Sicily, but the travellers who pass by the neighbourhood seldom go out of their way to visit it.^{c,d} The eastern sides of the Strandschea mountains rise above the inhospitable shores of the Euxine, where many intricate caverns have been discovered in Midiah, or the ancient *Salmydessus*; but the coast is destitute of harbours, and the mariner cannot find a safe anchorage before he reaches the gulf of Bourgas, which runs into the interior between Hæmus and Strandschea, and is surrounded on every side with small ports.

Some branches extend from the last chain towards the Thracian Chersonesus, and unite with a lofty group, the ancient *Ganos*, or the modern *Tekiri-Dag*. It is that high country which forces the Hebrus to change its primitive direction towards the Propontis, and it sends to it many tributary streams, among others the *Ergine*,^e which, like the *Teara* admired by *Darius*, retains its old Thracian name.

Selivria and *Rodosto* are two flourishing Greek cities on the coast of the Propontis under the government of the *Captain Pacha*; *Gallipoli*, a town of 17,000 inhabitants, is situated on the strait, which is but feebly guarded by the castles of the

Dardanelles; a more convenient entrance might be made into the Propontis, if a canal were cut across the Isthmus from the gulf of Saros. The small town of *Enos* stands near the mouth of the Hebrus; *Demotica*, the residence of the heroic fugitive from Pultawa, is situated above it in a fertile valley on the banks of the same river. The rugged pass along the ancient mount *Ismarus*, which extends from *Rhodope*, and is called *Gurtchine* by a modern traveller,^f lies to the west of the Hebrus. *Ienidscher* is situated near the marshes at the mouths of the *Nestus* or *Karasou*; beyond it are the ruins of *Abdera*, and the famous pass of *Kavala* or the ancient *Stena Sapæorum*, which was fortified by *Brutus* and *Cassius* a short time before the battle that put an end to Roman liberty. Our imperfect account of Thrace ends with these memorable places, near which the rich gold mines on Mount *Pangæus* excited in past ages the avidity of the *Thasians* and *Macedonians*. The vast territory between *Kavala*, *Philippoli*, *Adrianople*, and *Enos*, all the land watered by the *Nestus*, the *Suemus*, and the *Harpessus*, all the poetic vallies of *Rhodope*, form at present a *terra incognita* inhabited probably by Bulgarian, Albanian, and Thracian tribes.

Macedonia is surrounded by mountains on the northeast, the north, the west, and southwest; it projects on the southeast between the gulfs of *Salonica* and *Contessa*, and forms a peninsula terminated by three promontories of which *Athos* is the largest. It is divided by its mountains into many sloping vallies, and intersected by numerous passes; the natives say that the traveller may see in their country many beautiful cascades, and the ruins of many ancient temples.

The range to the east of the *Strymon* has not as yet been designated by the moderns; *Mannert* considers it, or at least the highest part of it, in which a late writer places the *Arapnitza* mountains,^g as the *Orbelus* of the ancients. The continuation of lofty heights on the north is sometimes called *Argentaro*; that term, according to *Brown*, has been applied to it from the lustre of its white mica rocks, and has no connexion with its silver mines; it might be urged that the word *Argentaro*, which is of vague signification, was first for want of a better name marked in the maps of the 17th century; the silver mines were in all probability situated on the *Dysoros*, which formed a part of the ancient *Orbelus*.^h Mount *Scardus* on the northwest appears to have retained its ancient name under the Turkish one of *Schar-Tag*, but it is difficult to find any term either ancient or modern for the western chain between Macedonia and Albania; it may perhaps be more correctly considered a high country crowned with a number of heights and some detached mountains. The *Ssodrus*, the *Bernus*, and the *Candavian* mountains of the ancients, were separate groups. The word *Bernus* is probably connected with the *Tyrolian Brenner*, and without doubt the *Pyrenees*, a name which a Byzantine writer applies to the whole chain,ⁱ is one of its derivatives. The *Bora* of *Livy* and *Pouqueville* appears to be an interior branch, which includes the sloping heights between middle Macedonia and the highest ridge.^k

All these mountainous ranges terminate on the south in the ancient *Pindus* or the modern *Mezzovo* between *Epirus*

^a Delisle's Atlas.

^c Hadgi-Khalifa, *Romelia*, p. 17.

^d "In the little chain which extends from Strandschea towards Constantinople, we are informed by the Turkish geographer that there are numerous habitations cut in the solid rock, called *Indchiguis*, rising in several stories above each other, and extending to a great distance; they form, as it were, a city of *Troglodytes*, such as have been observed in Sicily, but they have not yet attracted the attention of any traveller."

^b *Sturmer*, *Esquisses*, p. 203.

^e *Erginus*; Turkish, *Erginek*.

^f *Paul Lucas*, *Voyage*, t. I. p. 25. 47.

^g *Mines d'Orient*, t. V. p. 440.

^h "The name *Argentaro* is of vague signification, and is applied at random in the maps of the 17th century. It is perhaps the *Dysoros*, which contained mines of silver, and formed a part of the *Orbelus*."

ⁱ *Georg. Acrop.*, c. LXXXI.

^k *Pouqueville*, *Voyage*, t. I. p. 315; t. II. p. 365. 407. 413.

and Macedonia; Olympus, a separate chain on the east, has been styled by some modern travellers *Lacha*, by others *Olimbos*; *Vermion* (Bermius) and *Verghitission* (Bercetesi-
sius) or Xero-livado, which means literally a barren meadow, are situated in the interior, and descend from the west towards the plain; the *Kerkina* and perhaps the *Bertiscus* of the ancients extend in a different direction from the north-east to the south; but it is impossible to determine all these localities, or even to point out the course of the rivers. The *Strymon*, which issues from its seven lakes on mount *Scomius* and receives the *Karasou*, a large feeder from the west,^a has perplexed many geographers;^b that river, after having formed the lake *Kadaka*, or the ancient *Prasias*, discharges itself into the gulf of *Contessa*. The *Axius* signified probably in the ancient Macedonian, the river of wood-cutters, but its name was changed during the Low Empire into that of *Bardarius* or *Vardar*, which is very likely a generic word in the ancient *Dardanian*; the *Axius* flows from Mount *Scardus*, and receives the *Erigon* or *Vistritza*. The small delta formed by the ancient *Halæmon*, at present the *Indge-Karasou*, is now almost united with that of the *Vardar*; many rivers in the interior of Macedonia were unknown to the ancients, and are still unknown to the moderns.

The mines of *Karatova* in the same province are still worked, and yield copper ore mixed with silver: the mountains of *Dupindscha* are covered the greater part of the year with snow; the iron mines on them are inferior in the quality of the metal, and not so rich as those of *Vrana* or *Uivarina*: a great quantity of salt is taken from the lake *Iaidshiler*; but all these articles are not nearly so valuable as the agricultural produce of the country. The soil of Macedonia is more fruitful than the richest plains in Sicily, and there are few districts in the world so fertile as the coast of *Athos* or the ancient *Chalcidice*; the land in the plains of *Panomi* and *Cassandria*, when grazed by the lightest plough, yields a more abundant harvest than the finest fields in the department between the *Eure* and *Loire*, or the granary of France;^c if the wheat in its green state be not browsed by sheep or cut with the scythe it perishes from too much luxuriance.^d

The culture of cotton and tobacco is found to be more profitable than that of corn throughout the north of Greece; on that account new land is daily brought into cultivation.^e The district of *Seres* is more fruitful in cotton than any other; the value of that article in Macedonia alone amounts to seven millions of piastres. Two varieties of tobacco, the *Nicotiana latifolia* and the *Nicotiana rustica*, are produced in the same country; the land on which they grow is not less than one eighth of the whole in cultivation; employment is thus furnished to 20,000 families; the average crop of tobacco is supposed to be about a hundred thousand bales, and the gross revenue^f derived from it four millions of piastres. Macedonia is also famous for its wines, some of which are equal to those of *Burgundy*; corn and different leguminous plants are profitably cultivated in the interior, where the climate has been less changed than in the maritime country by the demolition of forests and other artificial means, but in

many enclosed vallies the heat is oppressive and the plants are sometimes destroyed.

The town of *Salonica* is situated on an amphitheatre formed by the gulf of the same name in the centre of the country; its population amounts to 70,000 inhabitants, its trade is extensive, and it still retains many monuments of its ancient splendour, among others different triumphal arches, one of which, still nearly entire, was erected in honour of the emperor *Antonine*; the church of *St. Demetrius*, and several others, are now converted into mosques. The bay is not sheltered against every wind, but the harbour constructed by *Constantine the Great*, may safely contain three hundred ships. The town is supplied with water by means of aqueducts from *Mount Hortasch*. "It is disgraceful," says *Hadgi-Khalifa*, "that so many Jews are allowed to remain in *Salonica*, but the excitement thus given to trade is apt to blind true believers; the Jews," continues the same writer, "employ many workmen in their different manufactories, and support a number of schools, in which there are not fewer than two hundred masters."^g The caravans that travel from *Salonica* to *Semlin*, *Vienna*, and *Leipsic*, are loaded with cotton, tobacco, carpets and leather.

The other parts of the *Chalcidian peninsula* are insignificant in comparison of *Mount Athos*, the *Hagion Oros* or the holy mountain; but its name has been corrupted into *Ayonouri*. It rises in the form of an isolated pyramid; on its sides are twenty-two convents, five hundred chapels, cells and grottos, and many villages, peopled by at least four thousand monks: the hermits live in caves, their number does not exceed twenty; the rest are mere monks, and among them are individuals of every nation. They cultivate olives and vines, or work during their leisure hours as carpenters, masons and weavers. These romantic and sequestered shades, in former ages the retreats of philosophy, are now the haunts of superstition. *Philostratus* says in his life of *Apollonius*, that many Greek philosophers used to retire to *Mount Athos*, that they might be better able to contemplate the heavens. The monks have several farms in the peninsula, and their mendicant brethren levy a considerable tribute in the neighbouring districts; they carry on a lucrative trade at *Karkis*, the largest town on the mountain, and at the strong harbour of *Alavara*.

Seres is one of the towns in the country watered by the *Strymon* and the *Pontus*; its population is not less than 30,000 souls, but many of the inhabitants on account of its unhealthiness repair during the summer to the neighbouring mountains.^h *Drama* is famous for its canvass,ⁱ *Ostromeza* or *Strumitza* for its warm springs, and *Kostendil* or *Giustendil* also for its warm and sulphureous baths. Many valuable monuments might be discovered in these retired spots; the monks in the convent of *St. John*^k guard religiously the remains of the patriarch *Gennadius*, but they threw about twenty years ago five hundred Greek and probably ancient manuscripts, into the river; an ancient colossal head supports at present a modern edifice in *Drama*.^l

The town of *Uskub* which stands in the basin of the *Upper Vardar*, is the ancient *Scopia*, which signifies a place

^a The ancient *Pontus*.

^b *Carte de M. Riedl*. It is probable the word *Strymon* was a generic term for river, like *Struma* and *Stramien*, in the Slavonic and Gothic languages, and, like the modern word *Karasou*, was applied to many rivers. Some information may be obtained on the subject from the travels of *Cousinieri*.

^c "Beauce," one of the old provinces of France, now forming part of the department of *Eure and Loire*. It is very fertile in wheat.—P.

^d *Felix Beaujour*, *Tableaux*, &c. t. I.

^e "Their cultivation is continually increasing."

^f "Revenue," returns, profits—the value of the crop, as stated above of cotton.—P.

^g "The Jews carry on an extensive manufacture of carpets, and have a school in which there are 200 teachers."

^h "It has flourishing cotton manufactories, and a thriving commerce."

ⁱ "Tent cloths." ^k "St. Jean de Prodrome." ^l N. MS. by a native.

commanding a distant view ; in the time of the Low Empire it was one of the keys of Macedonia, and Hadgi Khalfa informs us that it is styled in an ancient Greek writing the young bride of Greece ; the same writer adds, that the great clock in the town may be heard at the distance of two leagues. The traveller who descends the Axios, leaves on the left the valley in which is the town of Istib or the ancient Stobi, and observes the Koukia Karasou or the Erigon on the right. *Bitolia* or *Monastir* is the principal town in the district near the last river ; it is peopled by 15,000 inhabitants, and is the residence of a governor who possesses the title of Romeli-Valicy ; his jurisdiction extends over the whole of Romelia, but the place is not as M. Pouqueville supposes, the capital of the province.^a It is subject to the government of the Captain Pacha.^b The whole country is well wooded, fertile in corn, and rich in pasturage.

M. Pouqueville has enabled us to distinguish the basin of the Erigon, (the *Osaphagus* of Livy,) from that of the *Eordæus*, or *Potava*, which have been unfortunately confounded by the learned and laborious Mannert, who has thus in his attempt to correct, added to the number of D'Anville's errors, and shown the impossibility of illustrating ancient geography without a careful examination of modern maps. Palma was the first who put an end to the numerous discussions concerning the geography of that part of Greece ; he marked even more accurately than Pouqueville,^c the two passes that confine the valley of the Erigon. As we descend the numerous lakes in the valley of the *Eordæus*, we arrive at the admirable site of the ancient Edessa, the first capital of Macedonia and the burying place of its monarchs ; it is now known by the Slavonic name of Vodina. The river divides itself into four branches, and forms several romantic cascades ; near the houses shaded by lofty plane trees the water assumes a silver tinge, and is seen afar off, according to some writers even at Salonica.^d Jenidsche is situated below Edessa near the ruins of Pella, which have been lately examined by Barbié du Bocage : feudal estates extend from the last place to Strömza ; these possessions belong to the Ghavrini, the only family in Turkey, except the Othmans, that possesses heritable privileges which have been solemnly recognised.

Castoria is situated near the winding course of the *Haliacmon*, on a fine lake, which is large in winter, but its waters are marshy and partially drained in summer. *Servia* is built on a public road that crosses Olympus, and *Kara Veria* or the ancient *Beræa* in the low grounds ; many of its industrious inhabitants are employed in working an extensive quarry of red marble. *Niausta*, or as the natives term it, *Pompeiopolis*,^e a town in the midst of many rivulets, has been recently destroyed ; it was famed for its wines.

The *Yeuruks*, or the *Koniarides*, a numerous tribe in Macedonia, are descended from the *Turcomans* of *Konieh*, who were removed to keep in subjection the tributary population ; they are scattered in *mahalets* or villages, where they still enjoy important privileges. These inhabitants in the mountains of Macedonia weave a coarse cloth, which is used for clothing to the poor in many parts of Greece. Many Bulgarian and Albanian tribes lead a pastoral life in

the high districts ; the description which Strabo gives of the *Dardanians* may still be applied to the *Lac-Oulacs* who live near the sources of the *Vardar*, and the *Kastareses* are a tribe made up of *Servians* and *Walachians*, who inhabit the country in the neighbourhood of *Castoria*.

The large valley of the *Peneus* is bounded by well-known mountains, Olympus, Pindus, *Œta*, and Pelion, which enclose the Thessalian amphitheatre. The breed of horses in the province is not the best in Greece, but it abounds in oil, wine, cotton, silk, and wool. Larissa, or *Ienischehr*, the capital, is situated on the *Peneus*, and surrounded by a country fruitful in oranges, lemons, citrons, and pomegranates ; the same district produces fine figs, excellent melons, grapes, almonds, olives, and cotton, but the Turks who inhabit it, are more barbarous than the rest of their countrymen. Larissa owes its importance and comparatively extensive commerce to its leather, tobacco, and famous red dye ; its population amounts to 25,000 souls. The Greeks of *Ambelakia*, in the vale of *Tempe*, and those of *Zagora*, in a district of ancient *Magnesia*, have a long time escaped Turkish oppression ; the best kind of silk is produced in the last district, and the manufactories in the town furnish occupation to many of the inhabitants. Cotton is the great article of commerce at *Tournavos*, a small town about three leagues to the northwest of Larissa, but it is the celebrated dye, or as it is termed in different countries, the red of the Levant, that renders the manufactures of Thessaly more valuable than those in the rest of Greece ; the excellence of that dye has been attributed to the superior quality of the *alyzari*, a species of madder which is most common in *Anatolia* and *Bœotia*. The passes of *Agrafa* might be easily defended ; they lead to *Epirus*, and are situated near *Tricala* or *Tirhala* a considerable town. The *Meteora*, or high places, are a line of monasteries on steep and probably basaltic rocks, which the monks ascend by means of ropes and baskets ; these heights extend to the mountainous chain of *Maina*.^f The inhabitants of *Pharsala* have not forgotten that near their town an eventful battle was fought, or that the oppressed world was avenged when the Romans turned their arms against each other.

Volo, on the gulf of the same name, retains but little of the splendour of the ancient *Demetrias*, the naval station, which, together with *Chalcis* and *Corinth*, was supposed to command Greece ; the bay is extensive, but the anchorage is unsafe ; the harbour of the town of *Trikeri*, at the entrance of the gulf, is commodious and well frequented.^g

The ancient *Sperchius* waters the valley that in the remotest antiquity was called *Hellada* ;^h the modern towns of *Patratheick* and *Zeitoun*ⁱ have been built in it.

The traveller, after having passed the straits of *Thermopylæ*, enters into Greece Proper ; the climate is more oppressive, water is scarcer, but the soil is fruitful ; oil is the most valuable production in the southern provinces, and that of *Attica* is superior to every other, but a thick fog rises occasionally from the *Archipelago*, and is destructive to the olive trees ; it falls in the form of dew, and penetrates into the roots and sap ; the leaves become yellow, the flowers decay, or if the fruit ripens, it is of little value. The oil exported

^a Pouqueville, Voyages, t. II. p. 306, 307 ; I. 192.

^b Hadgi-Khalifa, Rumili, &c. See the translation of Hammer, p. 96.

^c "Than the map, accompanying Pouqueville's Travels, by Barbié du Bocage."

^d "The river divides itself into four branches, and among the houses, and in the shade of lofty plane trees, forms several picturesque cascades, whose silvery waters are seen at a great distance, even, it is said, as far as Salonica."

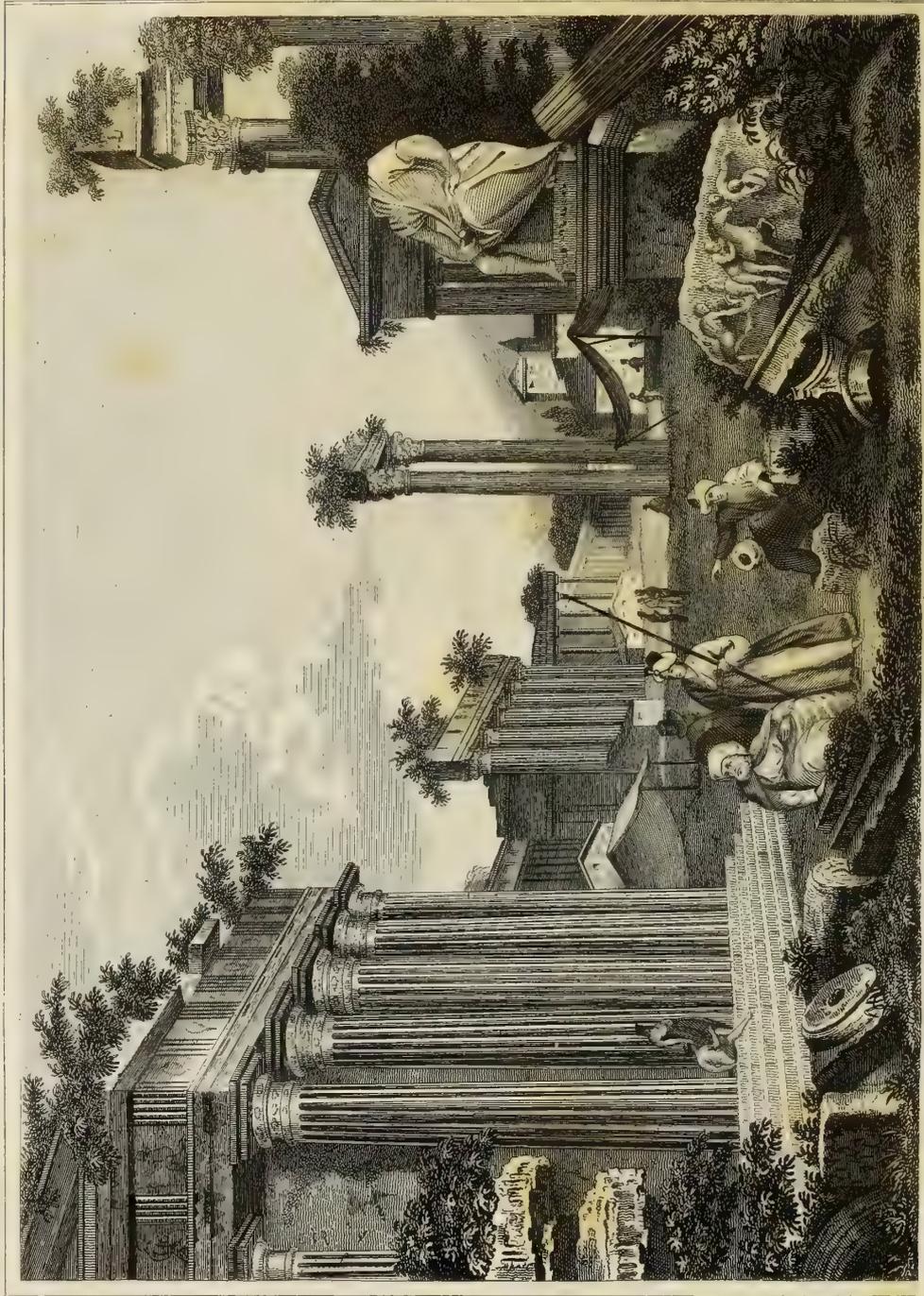
^e N. MS. by a native.

^f "These heights join a chain of mountains called *Maina*, like the ancient *Taygetus*." They do not really join the chain of *Maina*, in the *Morea*, but only a chain bearing the same name.—P.

^g Bartholdi, Voyage, p. 19. (Germ.)

^h "The *Sperchius* is now called the *Hellada*, which, in remote antiquity, was the name of the valley which it waters." The ancient name was *Hellas* ; *Hellada* is the modern form.—P.

ⁱ *Zeituni*.



Engr'd by W. Chapman

RUINS OF ATHENS.



VILLA PAUSANIAS, WITH THE TEMPLE OF AGRIGENTO.

annually from Attica is calculated to be worth 300,000 piastres; that from the Morea more than 400,000. Corinth is still famed for its raisins,^a Arcadia for its cheese, and Mount Hymettus for its honey. The soil of Attica is covered with aromatic plants, and that circumstance enables us to account for the excellence of its honey; it is sweeter than that of other countries, retains its aromatic fragrance, and, although of a red colour, is perfectly transparent. The same country might rival Spain in the fineness of its wool; the sheep thrives on its hills, the uncultivated lands are overrun with thyme and marjoram, and the Albanian shepherds lead their flocks in summer to these pastures. The breed of sheep was improved in the time of the Byzantine emperors by a mixture with the African and Asiatic races, but it has not since been sufficiently crossed; the breed of sheep in Livadia and Arcadia is the best, that of Attica the worst.

The view from Mount Parnassus is extensive; a traveller saw from it Olympus, the Ionian Islands, and the Cyclades; he might have observed beneath him the town and gulf of Lepanto, the marshes near which Missolonghi and Anatolico have become the residence of freemen, and on the east amidst flowery meadows, the populous town of Livadia in the province of the same name.

We pass the Helicon and the Kithairon^b of which the present barbarous names are unknown,^c and through Thebes or Thives, and arrive at Athens. The population of that city is not greater than 12,000 souls, but its ancient monuments are the most magnificent and renowned in the world. The peristyle of the Parthenon, the temple of Theseus, the lantern of Demosthenes, the tower of the winds, Adrian's gate, and a wall of the theatre, are still standing. Strangers hasten on their arrival at Athens to visit the Acropolis; that rock, inaccessible on three sides, rises above the old and the new town. It was there that Cecrops and Theseus assembled the inhabitants of Attica, and Themistocles surrounded it with walls after his victory at Salamis; on the same rock was built the temple of Minerva, the Parthenon, a monument of the genius of Pericles and the art of Phidias. It was spoiled by the Venetians;^d the work of destruction has been continued by the Turks and Greeks; both have disfigured it, and used the materials in building houses; a Corinthian chapter is sometimes seen in the side of a cottage; the frieze was lately stripped of its sculptures by Lord Elgin, a Scotchman.

Corinth, with its two gulfs and rocky isthmus, which so many sovereigns have in vain endeavoured to cut, still commands the entrance into the Peloponnesus, which has been styled by the Slavonic tribes who penetrated into it during the Byzantine empire, the Morea, or the maritime country. We observe in that region the agreeable town of Argos, and Napoli de Romania, or as it is sometimes called, the Gibraltar of Greece, with a harbour in which three hundred vessels may ride at anchor, Napoli de Malvoisia^e and its great bay, and in the interior, the populous town of Misitra on the valley of the Eurotas, the present Vasili-Potamo or royal river,

and Tripolitza, where a pacha resided with impunity near the ruins of Mantinea. The towns on the southwest coast are Calamata on the fruitful plains of Messenia, Navarino which still retains its admirable harbour, and Gastouni towards the west in the fertile fields of Elis; but Patras, a place of greater trade than any of them, contains 8,000 souls. Mega-Spileon, a convent partly cut in a rock, the gloomy lake of Stymphalus and many other places renowned in history, are situated in the interior of that rich peninsula, of which the produce in corn, grapes, figs, wine, oil, cotton, silk, and many other articles, amounts to fifteen millions of piastres.^f The number of inhabitants according to the lowest calculation is not less than 250,000, and according to the highest not more than 400,000;^g but as the Peloponnesus has now become the country of the independent Greeks, and many strangers have repaired to it, its population is probably equal to 800,000. While we write Egyptian armies burn the cities, devastate the fields, and massacre the inhabitants of the Morea; other barbarians ravage the plains of Tempe and the banks of the Cephissus; the towns which we have mentioned are perhaps at present reduced to ashes.^h

The Greeks who wander among the ruins of their ancient glory, have at last endeavoured to shake off the Turkish yoke; heroic deeds both on land and sea, convinced every one that they had awakened from their long lethargy; but as in ancient times, their efforts have been enfeebled by internal discord, and the modern Greeks have unfortunately inherited the vanity, inconstancy, and treachery of their fathers. Nature has not denied them high intellectual endowments, poets and orators are born amongst them, but their natural abilities are not improved by cultivation; sarcasm and raillery supercede argument, and in their deliberations, a frivolous expression, a single word or gesture, is sufficient to make them unmindful of their most important interests. The *Moraites* are less volatile than the townsmen of Romelia, and better fitted to enjoy the blessings of freedom under a good government. The Athenians have not lost their ancient urbanity; their accent is more harmonious than any other in Greece, their language is less diffuse, and for that reason more energetic. Their appearance is nearly the same as that of their ancestors; the women of Athens are still distinguished by their light figures, the oval form of the face, the regular contour, the straight line that marks the profile, full black eyes, high forehead,ⁱ red lips, small hands and feet; they are equally graceful in the mournful dance of Ariadne, and in the rapid mazes of the *Romeika*. The simplicity of the ancient dress is in some degree retained; a white tunic descends from the neck, a mantle covers the arms and falls over the shoulders, a handkerchief tied loosely round the head does not conceal their jet-black hair; but the barbarous empire is typified in a clumsy and ill-placed girdle, red trowsers, and a heavy Turkish cloak.

The Greeks are still in possession of their church and clergy, but the former is oppressed, and the dignities which

^a "Ses petits raisins," its currants. The small grape, which furnishes the Zante currants, derives its name from Corinth.—P.

^b Cithæron.

^c Modern name of Helicon, *Zagara* (Clarke,) *Zagaro-Vouni* (D'Anville.)—P.

^d In the siege of Athens by the Venetians, in 1687, the Turks converted the Parthenon into a powder magazine. It was blown up by the bombs of the Venetians, and the roof of the edifice destroyed.—P.

^e "In Greek, Monemvasia."

^f Pouqueville, t. V. 23. 48, &c.

^g These estimates of population and produce apply to the period immediately preceding the late revolution.—P.

^h VOL. II.—NOS. 93 & 94.

^b Thanks to the battle of Navarino, and the French expedition under Marshal Maison, the Morea has been entirely freed from its barbarous invaders. The Greeks have begun, and are in a fair course of continuing a system of improvement, which will ere long place them in the rank of European and civilized nations. They only need a guarantee of their security, and a government strong enough to quiet internal dissensions, and free enough to develop their best faculties, to gain a point of cultivation and prosperity, perhaps superior to any they ever reached in the best days of their ancient glory.—P.

ⁱ "Le front petit," small forehead—such, if I mistake not, is the characteristic of female beauty in the ancient statues.—P.

the latter enjoy are publicly sold by the Turks. The secular ecclesiastics fill the offices of readers, choristers, deacons, priests, and *archpriests*, but they cannot obtain higher preferment; the monks only may become bishops, metropolitans, archbishops, and patriarchs. Curates and priests are permitted to marry before their ordination, but they are not allowed to espouse a widow or to enter into second nuptials; many Greek clergymen have lately fallen martyrs to civil and religious liberty; it might be fortunate for the nation at large, if the clergy were at the head of that party whose great object is to instruct the people.

The Greeks keep annually five fasts; on these occasions they may eat salt or dried fish seasoned with olive oil; the same indulgence is granted every Friday, and they are not apt to abuse it, for many consider robbery or even murder a less heinous crime than breaking an hebdomadal fast. Some of the Greeks have entered into a coalition with the Roman Pontiff, but without acceding to the doctrine of clerical celibacy, or giving up the rites of the eastern church; the union has been of little advantage to the pope, and unfavourable to the formation of an independent and national character in Greece.

A tribe of Laconian peasants are settled on the sides of Mount Taygetus, and enjoy that freedom which was so dear to the Lacedemonians, their forefathers; the Mainotes are accustomed from their infancy to the use of arms, and are ever ready to employ them against the Turks; although their courage is little removed from rashness, their accurate knowledge of the country, its different passes, and advantageous positions, enables them to retain their independence; the tribute which the Turks receive from them is almost nominal. The Mainotes are implacable in their resentment; their country is often desolated by civil broils, and their cottages frequently stained with blood; peace and order can only be restored by the aged, who are held in veneration by all the people;^a their counsels are received like the ancient oracles; the old men regulate in their *synods* the public expenses, and determine the best means of securing the public safety; their measures are concerted in the assemblies of the captains, and laid before a bey or chief, who puts them in execution. The council elects its chiefs, who are confirmed in the dignities of their office by the Turkish government; the Mainotes acknowledge at present the doubtful authority of the Greek republic. This people, who have resisted so long the Ottoman troops, are not numerous; the total population of the country does not exceed 60,000 souls, and the number of men fit to bear arms is less than 15,000. The produce and principal articles of commerce, are oil, rye, honey, wax, gall-nuts, cotton, kermes, raw hides, and wool. Agriculture has been of late years improved; the northern districts are gradually becoming more fruitful, and some of the harbours into which the largest vessels can enter, are likely ere long to be more frequented.

The Cacovouniotes, who have been frequently confounded with the Mainotes, are settled near Cape Matapan, and live chiefly by piracy; they are the most barbarous and cruel of the Greeks.^b The Baniotes in the interior of the district live also by plunder.

^a Respect for old age is a virtue common to them with their ancestors.

^b Clergymen used to accompany them in their piratical excursions, who replied to those that objected against their being at the same time pirates and priests, that they went to bless the spoils and divide the tithes.

^c Strab. l. X. Sieber, Voyage, t. I. p. 191.

^d Tournefort, t. I. p. 28, edit. 1717, in 4to. Theophrast. Hist. Plant. l. III. c. II.; l. IV. c. I. Plin., l. XVI. c. XXXIII. Savary, Lettres sur la Grèce, l. XXXVI. p. 322.

^e Or 600 stadia. Strab., l. X.

Candia or Crete is the first island on the east of Greece at the entrance of the Archipelago; that large and important settlement might serve to fix the doubtful limits between the Archipelago and the Mediterranean. The white mountains rise in the west of Crete; Strabo tells us that they extend to the distance of 300 stadia or 11 leagues, and are not lower than the highest summits in the Peloponnesus.^c These mountains, it is said, have been called white, because the snow remains on them always, but it is only in the vallies exposed to the north that the snow never melts.^d Ida is situated in the centre of the island: the circumference of its base is not less than twenty-five leagues;^e it consists of a group of hills heaped one above another in a pyramidal form. The climate of the first heights is temperate, and the sides are covered with lofty forests or clad with verdant pastures,^f while the wind murmurs round the barren summits, and in some places the snow remains throughout the year.^g The distribution of plants is remarkable; the part towards the north^h is covered with forests consisting chiefly of maple trees and evergreen oaks; the *arbutus*, the *andrachne*, the *cistus*, and the *alaternus*, grow on the southern sides; cedars, pines, and cypresses, adorn the eastern declivities; the part towards the west is nearly perpendicular, and forms a line of steep rocks which it is impossible to scale. There is a third chain of mountains in the eastern part of the island, but it is not so well known as the others. Most of these mountains are calcareous or cretaceous; but the mountain of Malava, near the gulf of Suda, is composed of schistus and granite at its base. The climate of Crete and all the islands in the Archipelago is tempered in summer by the wind which the natives call *enbat*; it blows from the north from eight or nine o'clock in the morning till evening. The rivers in the island may be compared to mountain torrents; the northern coast is sinuous, but on the south there is not a harbour or road where vessels can anchor in safety. The vallies and plains are very fertile, and although a great portion of the island is not cultivated, it produces sugar-cane, excellent wine, and the best kinds of fruit; the exports are salt, grain, oil, honey, silk, and wool. Crete abounds in wild fowl and different kinds of game.ⁱ

Olivier informs us that there are ten or twelve thousand Turks, and two or three thousand Greeks in the town and port of Candia; the fortifications erected by the Venetians have been repaired, but the houses like the same people built, are now fallen into decay.^k Rhetymo^l is situated on the ruins of the ancient Rhitymnæ; its population does not exceed five or six thousand souls, and the number of Greeks is nearly equal to that of the Turks. Canea, which is encompassed by a strong wall and a broad ditch, is peopled by four thousand Turks, two or three thousand Greeks, and some Jews. These three towns are the capitals of the three *pachaliks* into which the island is divided. The Turks in Crete lead a pastoral life; the Abdiotes or the descendants of the Saracens possess about twenty villages on the south of Mount Ida, and although the number of individuals is not more than four thousand, they are independent of the Turks; the Sphachiotes are said to have sprung from the ancient inhabitants and retain their freedom; they are included in the

^f Sieber, Voyage, t. II. p. 61. Meursius, Creta, l. II. c. III. Belon, Observat. l. I. c. XVI.

^g Diod. Sic., l. V. p. 338, edit. Wessel. 1746. Tournefort, Voyage, t. I. p. 53. Savary, Lettres sur la Grèce, p. 242.

^h "That part fronting Candia"—the chief town, situated on the north side of the island.—P.

ⁱ The *moufton*, or wild sheep, is said to be found in the mountains.—P.

^k Olivier, Voyages, t. I. p. 338.

^l Retimo.

pachalik of Candia; they elect their own chiefs, and occupy the high mountains which extend to the west from the province of Felino to that of Anari; their trade is carried on at the small port of Sphaehia, their capital; some of them are addicted to piracy, but the shepherds, farmers, and artisans, are the most industrious people in Crete.

The Archipelago is covered with islands; a thousand clear channels reflect the images of white rocks, verdant hills and sloping vineyards; the whole still exhibits the picture that Virgil has drawn, but if Horace were now to personify the ship that carried his friend, he might inform it that pirates were more dangerous than winds or quicksands.

Naxos, the largest of the Cyclades, contains about ten thousand inhabitants; high mountains extend across it; their base is composed of schistus and granite, white marble or hard limestone rests above the schistus, and from these rocks issue a great many springs that water and fertilize the plains;^a the produce of the island consists of wines, wheat, barley, oil, oranges, lemons, peaches and figs, cheese, which is exported to Constantinople, cotton, honey, and wax; the vintage was one year so abundant that the people were obliged to pour their wines into the cistern of the Capuchins;^b the island has no harbour nor good anchorage. Amorgo and Stampalia are situated on the southeast of Naxos; the one is famed for its vineyards, the other for its orchards; they are provided with safe harbours, and the rocks on both of them are covered with cedars and mastich trees. Nanphi^c abounds in onions and partridges; Santorini, the volcano of which we have already endeavoured to describe, lies to the west of it. The ancient Thera is not now covered with ashes and pumice stones; it is fertile in barley, strong wine, and cotton, which is not as in the other islands planted every year; its population amounts to 10,000, and all the inhabitants are Greeks. Paros, which is situated further towards the west, is peopled by two thousand souls; the island is known on account of its marble; its arid soil is fertilized by heavy dews; the harbour is the best in the Archipelago. We have already taken notice of the caves in Antiparos and Policandro, and the extinguished volcano in Milo; the last island is unhealthy, but fruitful in maize, cotton, melons, and colocintidas; its port is commodious, and protected at its entrance by basaltic rocks. The subterranean galleries in Milo are probably the remains of an ancient labyrinth.^d A fine clay (*terra cimolia*) is almost the only production of Kimoli or Argentiera.

As we return from these islands towards Attica, we pass on the right the healthy Siphanto, whose inhabitants cultivate their fields and neglect their mines; on the same side is Seripho, where the head of Medusa changed all who looked on it into stone; its natural productions may explain the origin of the fable.^e Thermia derives its name from its warm springs, and is fertile in corn and fruit.^f Zea, although diminished by earthquakes, still retains its good harbour; it was in that island that the Parian marbles were discovered, and a Danish traveller has lately collected in it many valuable monuments.^g

^a Tournefort, t. I. p. 213. Olivier, t. I. p. 313.

^b Villoison, MS. Annales des Voyages, II. p. 152.

^c D'Urville, Nouv. Ann. des Voyages, t. XXVII. p. 145. ^d Anaphi.

^e Tacitus, Annal. IV. c. XXI. Tournefort, I. p. 179.

^f "Barley and figs."^g Brondsted, Voyage en Grèce.

^h "— now inhabited by pigeons." It is now at least inhabited by the Greek refugees from Attica, and other territories occupied by the Turks. Efforts have been recently made by the American Philhellenists to restore the ancient port and establish schools in the island.—P.

ⁱ "Arbousiers," arbutus.

Colouri, or, as it is always called in history, Salamis, is situated near the coast of Attica; Engia or Ægina, once a populous island, is now uninhabited.^h Hydra, though nowise famous in ancient times, has become the residence of an industrious and free people; their trading vessels sailed formerly to all the ports in the Mediterranean; the inhabitants are now fighting in the foremost ranks against Turkish oppression; the most of the people reside in the town, which is one of the finest in Greece; the total population is not more than 40,000. Spezia is a small island in the neighbourhood of Hydra.

Miconi lies to the north of Naxos, and is peopled by 4000 mariners and pirates. Syra, though moist and cold, is fertile in grain and fruit. The barren heights of Delos rise between the two last islands; all the Greeks once repaired thither to celebrate the games in honour of Apollo; it is now uninhabited and overrun with rabbits. Tenos, one of the most delightful islands in the Archipelago, produces silk, figs, oranges, and wine, but not enough of corn for the consumption of its inhabitants, who have been estimated at 20,000. Andros, on the other hand, although very fertile, is said not to contain more than 12,000; it is well watered, and its mountains are covered with forests.ⁱ

The strait of Bocca Silota, in which the Greek fleet was lost on its return from Troy, separates the Cyclades from Negropont or Egripo, the ancient Eubœa, an island that still abounds in cattle, corn, wine, and fruits. The olive thrives in it; its forests supply the inhabitants with naval timber, and surround as in the time of Chrysostom, romantic and solitary vallies;^k the irregular movements in the Euripus, the strait that separates the island from the neighbouring continent, have been already mentioned; a bridge has now been erected from Eubœa to the mainland. Negropont or Egripo, the capital, *one of the keys of Greece*, is well fortified, and, peopled by 16,000 souls.

The islands in the northern part of the Archipelago are placed at greater distances from one another; Scopelo is covered with vineyards, and Scyros is well known on account of its valuable and extensive marble quarries; Skiathos has a large and safe anchorage,^l and the monks of Athos export from Sarakina, or the ancient Peparethos, the rich wine, so much prized by the ancients;^m the inhabitants of Thasos on the coast of Thrace work in their quarries or cultivate their vines; Lemnos or Stalimene is provided with a good harbour, and its population is not less than 8000 souls; travellers have observed the remains of a volcano, by which, it is supposed, a promontory and a small adjoining island were destroyed.ⁿ Samodraki, or the ancient Samothrace, once celebrated for its mysteries, is now peopled by villagers, and in many places covered with woods.

Some other islands are situated near the continent of Greece; they were lately united into a separate state under the protection of England, and under the name of the Ionian republic; they have been for a long time freed from the Ottoman yoke,^o and were successively possessed by the Venetians, the French, and the Russians. These islands are

^k Dio Chrysost. In. orat. Eub. ^l Annales des Voyages, X. p. 219.

^m Villoison, Annales des Voyages, II. 157.

ⁿ Buttmann, Mémoire sur le volcan de Lemnos. Ann. des Voyages, VI. 60. Dureau de la Malle, Mémoire sur l'île de Chryse, ibid. IX. p. 51.

^o The Ionian islands were never conquered by the Turks; after various reverses under the Greeks and Romans, these islands were subdued by the Venetians, who retained possession of them till they were seized by the French, on the downfall of the Venetian republic. In 1798, the French were expelled, and in 1800, they were taken under the mutual protection of Russia and the Porte; but the Porte was soon deprived of its guardianship,

refreshed by gentle zephyrs; the spring is of long duration, and the heat of summer is not excessive; the soil is for the most part rocky and arid, but wherever there is enough of earth, it is covered with olive, lemon, orange, and fig trees, that display throughout the year their fruits, flowers, and foliage. In some places the vintage is gathered four times in the year, and the rose appears in luxuriance in the midst of winter.

Corfu is the most important of these islands; a range of hills extends across it from north to south; San Stephano or their summit is not higher than 1400 feet; the island is about seventy miles in length by thirty in breadth, and contains a population of 70,000 souls; the olive tree arrives at greater perfection than in any other part of Greece, but the oil obtained from it is acrid. Corfu was for a long time considered the strong hold of Italy against the attacks of the Mussulmans; the capital of the same name, the only important station in these islands, is regularly fortified; its inhabitants amount to 16,000; the island is separated from the continent of Epirus, by a strait not broader than two miles, and in one part of it there is a safe and convenient harbour; the country is peopled by Greeks; some Italian families reside in the town.

The small island of Paxo lies six miles to the south of Corfu; no fresh water spring has been discovered on it; the land does not yield much corn or pasture, but is fruitful in oil and wine; it is peopled by six or seven thousand Greeks.

Santa Maura, the ancient Leucadia, is about thirty miles long and sixteen broad; and contains a population of 22,000 Greeks; some writers maintain that it was formerly united to the continent by an isthmus which was cut by the Corinthians; it is at present joined to it by sand banks and a series of wooden bridges; Amaxichi, the principal town, contains about 6000 souls; travellers remarked, among the antiquities of the island, an aqueduct with three hundred and seventy arches built after the Roman manner; it rested on the sand banks between the island and the continent, and communicated at one extremity with the fortress of Santa Maura, and at the other with the town of Amaxichi; it has been lately destroyed by an earthquake.

Cephalonia, although in a political point of view less important than Corfu, is more extensive and nearly as populous; it is about 170 miles in circumference, and contains sixty or seventy thousand individuals. The inhabitants are courageous, shrewd and intelligent, but revengeful and indifferent about the means by which their ends may be accomplished; a traveller says that Cephalonia has produced more than one Ulysses.^a

and the islands occupied by the troops of Russia. The French again took possession in 1807, but the British successively captured them, between 1810 and 1814, when they were recognised as an independent state, and placed under the protection of Great Britain.—P.

An excellent harbour is situated between the two small towns of Argostoli and Luxuri, which has sometimes contained one hundred and fifty trading vessels; the country is hilly, but fertile in grapes, and yields a great quantity of oil and wine; the summit of Mount Ainos rises to the height of 4000 feet above the level of the sea.

Teachi is believed to be the ancient Ithaca; it lies near the last island, and is sometimes called little Cephalonia; it is fifty miles in circumference, studded with villages, and its population amounts to seven or eight thousand souls.

Zante, the largest of them all after Corfu and Cephalonia, is not more than twelve miles distant from the last; it is twenty-four miles in length, and nineteen in breadth, and is inhabited by 40,000 Greeks, who still retain in a greater degree than their neighbours, the manners and customs of their illustrious ancestors; much, however, has been said of their perfidy, vindictive disposition, and great corruption. Zante, the capital, is the largest town in the Ionian islands; it is peopled by 20,000 inhabitants, and the Jews make up a twelfth part of that number. Different parts of it have been frequently visited by earthquakes; its productions are Corinthian raisins,^b oil, cotton, and wine; it was called by the Venetians the *fior di Levante*.^c

Cerigo, or the ancient Cythera, lies to the south of the Morea, and at a considerable distance from the other islands: it belonged at one time to the Venetians; at present it forms a part of the new republic: the land is stony, but within the inclosure of rocks which surrounds the island, there are many well-watered valleys, fertile corn-fields, and rich pastures: the inhabitants are Greeks, and most of them lead a rural life; their number is equal to nine or ten thousand. Some curious and rare plants are enumerated in the flora of Cerigo.

The Ionian republic is peopled by 220,000 inhabitants; its revenue amounts to nearly £ 100,000,^d and its national militia to four or five thousand men. Some frigates display the British flag in these islands, and England maintains on them 2400 soldiers.

The English government expends annually £ 50,000 in keeping up the fortifications, and in paying part of the military establishment; it is thus enabled to command the Adriatic and to guard the Archipelago. The Ionians are divided into nobles, burgesses, and agriculturists; their political institutions are of an aristocratic character; the Greek religion is now that of the state, but the clergy, who were kept in ignorance by the Venetians, are not at present desirous of improvement. Lord Guilford has founded a university at Corfu; were his example imitated, the light of knowledge might again be diffused over Greece.

^a "It has produced more than one Ulysses"—this is the simple assertion in the original, without reference to any traveller whatever.—P.

^b Zante currants.

^c Flower of the Levant

^d "2 millions francs."

BOOK XCIX.

EUROPE.

Turkey. Western Provinces. Albanians and Proto-Slavonians.

THE Solimans and Amuraths considered the Adriatic Sea the boundary of the Turkish empire; it is fortunate that it does not extend to its natural limit; the progress of Ottoman usurpation has been checked by the spirited resistance of the Albanians, Bosnians, and Servians; these three nations do not obey implicitly the dictates of the Porte; surrounded by despotic states, they are free, or at all events possess many important privileges. The islands and the maritime country were under the protection of Venice, once the mistress of the Adriatic; Ragusa and Montenegro retained their independence; the possessions of England and Austria at present form a barrier against the inroads of the Crescent. The Austrian frontier commencing at Orsova, extends along the Danube and the Save, crosses the Croatian mountains, and with the exception of two interruptions, encompasses by its numerous windings the whole of Dalmatia, Ragusa, and Cattaro; the length of the line thus formed is 230 leagues, whilst that of a frontier drawn from Cattaro to Orsova across Servia is not more than ninety. These artificial boundaries shall be disregarded; they are insignificant in comparison of those established by nature.

It is true that the western mountains in Turkey are not well known; we have already had occasion to make a similar observation in speaking of the chains which separate Albania and Epirus from Macedonia and Thessaly. It has not hitherto been determined whether they form a continuous range, or a series of high table-lands, crowned at different distances by groups of mountains; it is impossible from the want of measurements to arrive at any accurate decision on the subject. It is certain however that numerous branches extend from these mountains westward; some of them, such as the Tomourki from which the Voïoussa descends, and the Kimara or Acroceraunian mountains, whose rugged rocks project over the sea, are not less than 3000 or 4000 feet in height. The whole of Epirus or Lower Albania is covered with mountains, the most of them calcareous and furrowed by deep ravines; but travellers have given us no information concerning the country to the north of the Aous or Voïoussa. Shall we imitate the profound silence of geographers, or try to discover the nature of the country from some incidental and detached data left by historians, and the indications derived from Albanian and Slavonic names? Our rash attempt may perhaps awaken the curiosity of future travellers.

^a Cæsar, B. Civ. III. 30. 42.

^b Lucan. Phars. V. 465.

^c Lucan. VI. 331. Senec. Ep. 31.

^d "We may consider Albania as formed by two terraces, one of which rises abruptly from the sea, the other commences at 4 or 5 leagues from the

We observe several extensive plains on the maps of Central and Upper Albania, and the lofty chain of Scardus or Scodrus under the names of Gliubotin and Nissava-Gora, appears to form a great semicircle which encompasses the spacious basins of the double Drino and the Moraca. We shall show that the country so ill represented on the maps is as mountainous near the sea as it is in the interior. Cæsar speaks of the lofty and rocky coast round Dyrrachium or Durazzo and the steep banks of the Apsus;^a Lucan calls the Genusus an impetuous torrent.^b If these facts be connected with the details into which the historian of Scanderbeg enters concerning the rocky nature of the land in the country of the Mirdites and with the description of the passes of Candavia,^c a region continuous to that of the Mirdites, it must follow that there are two distinct ranges in Albania; the precipitous and bold rocks of the one rise from the ocean; the other commencing at four or five leagues from the sea, joins the lofty mountains near the lakes of Achrida and Malik.^d The steep coast near Dulcigno and Antivari indicates the height of the plain of Scutari, and on the north of its lake, the names of Podgoritz and Gouri mark a second degree of elevation. The inaccessible heights of Montenegro and the steep rocks round the gulf of Cattaro lead us to suppose that the interior of southern Dalmatia is crowned by a high ridge;^e the position of the Roman road in that country is now unknown, but Birziminium signifies a place in the neighbourhood of precipices.^f The most frequented mountains in Austrian Dalmatia extend to the sea, and terminate in steep calcareous rocks, which together with the islands at no great distance from them, are probably of the same formation as the chain or high country between Bosnia and Turkish Dalmatia. In that lofty region are situated the Albanian mountains of Ptolemy, or the Albian mountains of Strabo, the present Vitoraga, Radussa, Planitza and Ranick; it exhibits the phenomenon of an extensive table-land without an outlet, a fact which has hitherto escaped the attention of geographers.

This table-land commences below Mount Vitoraga near the marshes of Czerni-Lug to the west of Glamocz, and extends by Livno and Jmoski to Mount Czerlievisca on the north of Vergoraz; its length is about sixty English miles, its breadth varies from ten to twenty.^g It includes within this space seven or eight lakes or marshes, among which are the Kutcho-Blaton and the Proloza, and eight or nine small rivers which have no outlets; other stagnant

sea, and extends to the high mountains which encircle the lakes of Achrida and Malik."^g "Consists of elevated plateaus."

^f Birziminium is derived from the ancient Albanian word B'reziminuem.

^g "70 Italian miles by 10 to 20." The Italian mile is to the English as 1.16 to 1.—P.

waters are situated near them; rain is of rare occurrence in the district, and the little that falls is absorbed in the land. This singular configuration of the high country between Bosnia and Dalmatia appears anew near the sources of the Drinna in the *White Plains* (Bielopolie,) and more remarkably in the large and celebrated plain of Kosovo near the sources of the Ibar, and not far from those of the Vardar. Nor is this singular configuration confined to the interior; a river which falls, after a course of fifty miles, into a small lake or gulf,^a waters the almost maritime vallies of Popovo. The mountains are without doubt similar to those in Carniola; in other words, they form a calcareous table-land, rising in terraces and in many places cut by caverns.

Bosnia and Servia are mountainous regions, but the hills are not exclusively calcareous; schistus and granite are occasionally observed, and the course of the rivers proves that the form of the vallies is different; all of them terminate in the great plain of the Danube. Few topographical works have been published concerning these countries; the information in the few that exist is very scanty; the height of mountains is not mentioned; the geological indications are imperfect. The word Nisava-Gora or low mountains, the Slavonic term for the heights^b between the Moraca and the Drinna, may indicate a lower level than that of the Scardus; but almost all the Bosnian mountains have derived their names from the trees which grow on them; and as the Slavonian terms of the middle ages have been mixed with ancient Illyrian or Albanian, it is useless to analyze them. Mount Balle is indeed, as its Albanian name signifies, the *head* of a small group in Dalmatia, but other points of greater importance cannot be so easily explained.

Some writers insist that there are basaltic columns on the Stolacz range, others maintain the contrary.^c The Czernemo mountains are situated in the *heart* or middle of Servia,^d and are marked as a lofty chain in the map of Riedl, but it is doubtful if they be correctly represented. We may expect that ere long the geography of these regions will be better known.

The climate may be more easily determined; the countries on the Adriatic, or Albania and Dalmatia, are subject not only to the warm temperature of Italy, but to droughts and sudden and violent north winds. The territory included within the basin of the Danube, (Bosnia and Servia,) resembles Austria and Transylvania as to climate; it is exposed to the north wind, and its elevation is considerable. The cold and damp weather that prevails in the high districts during four months in the year, is to be imputed in a great degree to the position of the mountains on the south of Trawnik, and on the east of Bosnia.^e The Albano-Dalmatian flora is connected with the Italian, but the Bosno-Servian with those of Austria, Hungary and Transylvania; the plants have been carefully examined only in a few districts. The vine thrives on the banks of the Danube and the Save;

the olive rises from the shores of the Adriatic to the first heights in Dalmatia and Albania; two low regions are thus marked by the limits of vegetation; the high country between them is noted for its fertile fields, excellent pasturage, lofty forests, and mines rich in gold and iron. Such at least is the description that Strabo gave when he advised the Romans to cultivate and civilize it;^f and his account of the Illyrian regions is perhaps the best that has hitherto appeared.

Lower Albania or the ancient Epirus lies to the south of the fortieth parallel; we shall consider it on that account as a distinct region; its climate is colder than that of Greece, the spring does not set in before the middle of March, and the heat of summer is oppressive in July and August; in these months many streams and rivers are dried up, and the grass and plants are withered. The vintage begins in September, and the heavy rains during December are succeeded in January by some days of snow and frost.^g The oak trees, and there is almost every kind of them, arrive at great perfection,^h the plane, the cypress, and the manniferous ash appear near the sea coast beside the laurel and the lentisk; but the forests of Pindus consist chiefly of cedar, pine, larch and chestnut trees.ⁱ Many of the mountains are arid and sterile: such as are sufficiently watered, are covered with the wild vine and thick groups of elders; in spring their sides are clad with flowers; the violet, the narcissus, and the hyacinth, appear in the same profusion as in the mild districts of Italy. The inhabitants cultivate cotton and silk, but the olive, for want of proper care, does not yield an abundant harvest; the Amphilochean peach, the Arta filbert, and the Musachi quince, grow in a wild state, in the woods and uncultivated land.^k Epirus was once famous for its oxen; the breed was improved by King Pyrrhus;^l it has now degenerated; they are small, stunted, and ill shaped. The horses of the same country, says Virgil, are swift in the race; they are not large, but spirited and active. The Molossian shepherd dog^m is strong, courageous, vigilant and faithful. The brown bear is a harmless inmate of the forests of Pindus; but the wolf and the jackal are seen amidst the ruins, and pursue their prey in the deserts. Numerous flocks of water-fowl hover round the lakes, and the Ambracian gulf abounds in shell-fish and mollusca.

Janina,ⁿ the capital of Epirus, and a place of considerable trade, is peopled by 40,000 inhabitants; it is situated in the basin of the ancient Helopia, and on the banks of the lake Acherusia, the waters of which are discharged into a subterranean abyss. Lord Byron viewed the valley from the monastery of Zitza; the scenery has been described by the English poet.^o Pouqueville gives an account of its fruitfulness, and forms some conjectures about the existence of volcanoes from the red colour of the clay, and the sulphurous odour that emanates from the dried turf or peat; if these be indications of volcanoes, there must be subterranean fires beneath most marshes. The

^a "Gouffre."

^b It corresponds with the German term *Gesenkergebirge*, in Moravia.

^c "Does the group of the *Grand Stolacz* offer basaltic columns, or only the resemblance of a throne?"

^d *Zemera*, in Albanian, signifies the heart.

^e "Is indicated by the names of the mountains, such as the Cloudy Mountains (*Uranie*,) to the south of Trawnik, and the Mountains of Hoarfrost, on the east of Bosnia."

^f Strab., VII. p. 219, ed. Casaub. ^g Pouqueville, t. II. p. 263—265.

^h Theoph. Hist. Plant. II. 3.

ⁱ Pouqueville, II. p. 186. p. 274; IV. p. 412.

^k "Se distinguent malgré l'absence du culture."

^l Plin., VII. 44. Arist., Hist. Anim. III. 16.

^m The mastiff, *Canis Molossus*.

ⁿ The ancient Euroca (*Euræa*.—Encyc. Method.—P.)

^o The convent and village of Zitza are four hours journey from Janina. In the valley the river Kalamas flows, and near Zitza forms a fine cataract. (*Byron*.) Janina is not visible from the convent:

Unseen is Yanina, though not remote,
Veiled by the screen of hills.—*Byron*.—P.

mountains like all those in Epirus are calcareous, cavernous, and probably placed between ridges of granite that rise from a common base. The ancient Acheron or the modern Glikis has been considered from the remotest antiquity, the subterranean outlet of the lake Acherusia; and the Velchi, a feeder of the Kalamas or ancient Thyamis, issues from beneath a mountain, and conveys away the waters of the lake Labdistas which communicates with the lake of Janina.^a

The snow that begins to fall on Mount Pindus in the month of September supplies the sources of three rivers, the Aspro-Potamo or the ancient Achelous, the Arta or the ancient Arachthos or Arethon, and the Voioussa or the ancient Aous; these regions were formerly inhabited by the *Athamanes* and *Perrhæbi*, and are at present by the *Walachians*, who, it is likely, have possessed these mountains a longer time than is generally believed, although it must be admitted that the name of *megalo-vlachie* was first applied to the country by the Byzantines; the principal villages are Mezzovo and Calarites; the inhabitants are industrious, and the greater number are engaged in trade; sumptuary laws are in force amongst them, and their happiness consists in a frugal and laborious life.

Arta is situated on the river of the same name, and at the place where it begins to be navigable for boats; the inhabitants carry on a trade in corn, cotton, and woollen stuffs; the ancient Ambracia has been transported by some geographers to the banks of the small river Charadrus or Rhogus, but it cannot be reasonably doubted that it was built on the present site of Arta.^b The town of Arta commands a fertile plain. Salagora, its port, stands on the large gulf of Arta, which, if its numerous windings be included, is at least equal to thirty or forty leagues in circumference; some convenient harbours, fishing stations and promontories covered with trees are situated on the sides of the gulf. Prevesa commands its narrow entrance, by which vessels that do not draw more than twelve feet and a half of water can pass; the same town fronts the ancient Actium.

The Acheron waters the rugged and rocky district of Souli, which resisted a long time the arms of Ali-Pacha; the Suliotes have, since the death of that tyrant, recovered their liberty, and repopled their villages. The town of Paramithi lies to the west of Souli, and its name has been extended to a pastoral tribe that subsist chiefly by plunder; their total number amounts to 15,000, and there are amongst them nearly as many Christians as Mussulmans. Parga stands on a rock; a harbour is attached to it; the place has been abandoned by its inflexible inhabitants,

who sacrificed their possessions, and carried away the bones of their ancestors, rather than become subject to the Turks. England was compelled to fulfil a solemn treaty into which it had entered, but the ignorance or simplicity of its ambassadors was unworthy the representatives of a European kingdom.

Many flourishing villages are scattered throughout the valley of Kalamas; the *Philates*, a Greek tribe who inhabit it, cultivate their gardens, olive trees, and corn fields, and pay a tribute that they may be defended against the aggressions of the Arnauts or Albanians. Butrinto, an old Venetian fortress, and Delvino, the residence of a Sanjak, are situated in an arid country, which is bounded by the Acroceraunian mountains. The town of Chimara, or Kimara, is the chief place of the savage Chimariots, who earn a wretched and precarious livelihood by piracy and plunder. The large harbour of Aulona, a town celebrated for its manufactures, lies beyond these mountains.

We shall return to Pindus, and survey the valley of the Voioussa; such is the present Albanian name of the river, and it means a never-failing current;^c but the Turkish geographer, Hadgi-Khalsa, calls it the *Vedis*, a word which in the hymns of Orpheus is synonymous with water, and not unlike the corresponding terms in Albanian, Slavonic, and some Gothic dialects; these two words were first applied by the Illyrians or ancestors of the present Albanians, but the substantives, *Aous*, *Avas* and *Aias*, are derived from an ancient Greek dialect, in which *aa* signified water. The town of Konitza, perhaps the ancient Antigonía, stands in a green valley, in the upper basin of the river, surrounded with high mountains;^d the other towns are Premithi, the ancient Brebeta, and Kleissoura; the last is built in an important pass that has been sometimes confounded with the one near the sources of the Aous. The river passes the defiles of Kleissoura, and then receives the tributary stream, which derives its name from the town of Argyrokastron or the ancient Argyas. Tepelen is situated below it in a desert and gloomy valley; it claims the doubtful honour of having given birth to Ali Pacha, who was a long time the dreaded tyrant, the severe master and merciless executioner of the Albanians.

M. Pouqueville discovered the Nymphæum at the confluence of the Suchista and Aous; the ancients inform us that flames in the midst of streams and verdant meadows issued from that extensive bed of fossil pitch; such phenomena are at present rare, the flames when they are seen, are not very vivid.^e

Central Albania, or as it is called by the natives, *Musachi*, is watered by the *Ergent* or *Krevasta*, the ancient

^a Map of the vicinity of Janina, by Barbié du Bocage.

^b "Ambracia was 80 stadia distant from the gulf (Scylax,) and 180 from Argos Amphilochicum. (Polybius.)" Arta is the only place with which these two measurements correspond. "Ambracia is encompassed on the east by hills, and its citadel stands on one of them; it is surrounded on the west by open plains and the river Arachthos or Arethon." (Tit. Liv.) M. Pouqueville must admit that the above description is wholly inapplicable to any place on the Rogous. D'Anville considers the Inachus a branch of the Achelous, an absurd hypothesis, and one that is wholly refuted by the recent maps of Palma and Pouqueville, but Reichard adheres to the supposition of D'Anville. Paulmier de Grentesmenil believes the Inachus and the Arachthos or Arethos to be one and the same river, and that it descends from the heights of Pindus. (Græc. Antiq. p. 148, 320, 321.) Mannert supposes the Inachus a torrent in the neighbourhood of Argos Amphilochicum, but that it has been confounded with the sources of the Arachthos and Achelous. Grentesmenil and Mannert might have cited in corroboration of their opinion the author of *de Fluminibus*, who alludes to the Inachus under the remarkable name of the *Haliacmon*. It is only necessary to read these

authors to be convinced of the error which M. Pouqueville has committed in applying the name of the Arachthos or Arta to the Rogous, and that of the Inachus to the Arachthos. It may be added, that the word *Ratous* in Strabo ought perhaps to have been written *Ragous*; the letters *Γ* and *Τ* might have been easily confounded by the transcriber. If this opinion be admitted, it would follow that this river is the Rhogus of Niger, cited by Grentesmenil, the present Louro and the ancient Charadrus. The Greek word *χαράδρα*, signifies a *torrent*, *χαράδρουθαί*, to fall like a torrent,* *ρωγν*, signifies a *precipice*, and all these terms are descriptive of the Louro or Rogous.

* "*Χαράδρα*, the bed of a torrent"—[also a torrent itself.] Hedericus, 1. *sulcus, quem torrens rapido suo impetu efficit et cavat*: 2. *torrens, qui impetuose e monte aut precipiti loco decurrens terram excavat*. In the first sense, see Homer, *Iliad*, b. IV. v. 452-4:—*χειμαρροι ποταμοι, καθ' ορσφει ροοτες—κοιλης εντροσθε χαράδρης*. "*Χαράδρουθαί*, to spread like a torrent, and form marshes." [Hedericus, *torrentibus impetuosius excavat*, Herod.]—P.

^c "Eau permanente."

^d Pouqueville, I. 171.

^e *Ibid.* I. 272.

Apsus and Artanes.^a The important town of Berat, which rises among olive woods and vineyards, was known in the middle ages by the Bulgaro-Slavonian names of Beligrad and Balagorod or White Town.^b The fertile but ill-cultivated country is covered with flocks and herds, and the Zigeunes or gipsies kindle their fires in the woods. Elbasan, which is situated on the Scombi or ancient Genusus, and Durazzo, a maritime town, are peopled by freebooters and pirates.

The Mati or the ancient Mathis waters a mountainous country, which is inhabited by the Mirdites, an Albanian and Catholic tribe, in some measure independent, more civilized, and less dishonest than their neighbours; they are indebted for these advantages which they retain in the midst of barbarians to a virtuous and enlightened priesthood. The Mirdites have the right of managing the affairs of their own country, and of imposing their own taxes, but they are obliged to furnish a certain number of men for the Ottoman armies; the catholic religion predominates in their territory; the Christian population is not less than 250,000 souls;° they are governed by two *prinks* or chiefs, one spiritual, who is the mitred abbot of Orocha, the other temporal, who is sprung from the family of the Lechi. Dion Cassius calls the Mirdites^d the Merdi, and places them on Mount Scardus; the famous Castriota or Scander-Beg, so long the terror of the Ottoman armies, was a native of the country; he was born in the town of Croya or Crouia, which signifies the metropolis; his ashes rest within the walls of Alessio; his countrymen have bestowed on him the extraordinary surname of the Albanian dragon;° his mighty deeds are still recorded in their songs.

The valley of the Black Drino extends behind these countries, and the lake of Ochrida or Achrida is situated in the highest part of the basin which forms the common centre of Albania and Macedonia; a town of the same name has been built on the banks of the lake in a fertile district that abounds in fruit, rich pastures, and silver and sulphur mines. Geographers and travellers have entered into long discussions about the position of the town; it is doubtful if there was another Achrida, situated on a hill abounding in springs, and also if that ancient Achrida, the capital of the Bulgarian monarchy, occupied the site of the Greek town Lychnidus, which was destroyed by an earthquake; its ruins, it is said, are still to be seen on the south-east of the lake; it is uncertain whether Lychnidus or Taurusium was the same place as the Justiniana Prima. We may add to the list of these difficulties, that it has not been determined if the Devol, which waters the shady valley of Gheortcha, unites with the Scombi or the ancient Genusus, as M. Pouqueville supposes, or if it enters the lake Achrida by the river Bogradessi. Anna Comnena says expressly that "the Drymon flows from the district of *Deabolis*, traverses the lake Lychnidus, and is enlarged by impetuous torrents;" the account given by the Byzantine Princess is not contradicted by the learned researches of M. Pouqueville. The Black Drino flows from Ochrida

across the districts of upper and lower Dibra, the native country of barbarous soldiers, some of whom have distinguished themselves in the Algerine armies, and ascended the throne of the Deys. The river continues its course northwards, and is joined near Stana by the White Drino, which descends in an opposite direction from the almost unknown region in which is situated the town of Perserendi, the birth-place of Justinian, and, according to the natives, the true Justiniana Prima; but the barbarism of the inhabitants, who are almost as unsocial as the bears and wolves on their mountains, renders the place inaccessible. The united streams of the Drinos water the fertile and romantic plain in which travellers seek for the town of *Dukagin*; the district of Za-Drina and its thirty-two villages are situated near the embouchure of the river, and peopled by fierce Albanians, who still retain their independence.

The valley of the Drino forms a part of Upper Albania, a country that has been seldom visited by travellers. Scutari or Scodra, which the Turks have capriciously called Iskenderiah or Alexandria, holds a conspicuous rank among the towns in their empire, and is considered its bulwark on the west; it is situated between the Boyana and the Drinassa, at the place where the first issues from the lake of the same name and receives the waters of the second; it is defended by two or three fortresses and extensive ramparts; the inhabitants amount to sixteen or twenty thousand; many of them are Greeks, some of the catholic, others of the eastern church; the people are employed in making arms, manufacturing woollen stuffs, building ships, and in fishing on the lake. The Boyana is not navigable beyond Polna, but Dulcigno and Antivari are provided with good harbours on the Adriatic; that part of the coast is called *Kraina* or the land, by its inhabitants, the most of whom are Slavonians; Antivari was peopled in the middle ages by Italian colonists.^f

The Guegues or Guikhes, or the red Albanians, occupy the whole of the interior towards the sources of the two Drinos and the Moraca, which is the name that the Boyana receives before it enters the lake of Scutari or Zenta. The country and its inhabitants are little known. M. Pouqueville^g mentions the *Zogs*,^h who have given their name to a lake in their vicinity; the *Murdes* and the *Chiscands*, in the neighbourhood of the Zenta; the *Bardi*, who inhabit the territory of Zadrina on the east, and are probably descended from the *Vardiaci*;ⁱ the *Koutchioti*, or fowlers; the *Liaiporosches*, or eaters of hares; the *Mousselims*, or tribe of Mossul; the *Boukmirs*, or bread-eaters; the *Dardes*, or descendants of the Dardanians; the *Drivastes*, or a number of robbers in Rascia; and the *Grouemirs*, or people in the country of beautiful women. The region on the east and north of Zadrina, between the Boyana and the Zem which falls into the lake of Scutari, is peopled by the Pontali, by the Choti, who are divided into the tribes of the Mogouls, Castrati, Bagous and Siwans or Soans, and farther to the west, by the Pascoli, whom the Turks call *Kolbans* or shepherds. The territory between the Moraca and the Tara, which, it has been asserted, unite at Limi

^a *Artanes* is the same name as *Charsanes* in Anna Comnena; whence are derived *Arzanes* and *Argenta*. It is the same name as *Artanes* in Bithynia, *Arda* and *Arzus* in Thrace, and *Arzanius* in Armenia. Livy writes it *Artatus*.

^b *Ta BaLaypara*, in the Byzantine authors. Paulmier de Grentesmenil observes rightly that it is probably an imitation of the Greek *Pulcheriopolis*; the Illyrian name is unknown. It is possible that it may have been the *Parthenia* of Polybius the *Parthinorum oppidum* of Cæsar; and as

barthe or *ibarthe* signifies white in Albanian, it may have been the *Albanopolis* of the *Albani* of Ptolemy.

^c Pouqueville, II. p. 548.

^d The name is more properly written Mird'es.

^e Culscedra Arbenit. (Ibarthe.)

^f Gul. Tyr. Bell. Sac. II. c. xvii.

^g Pouqueville, II. 512.

^h This word signifies "little birds."

ⁱ Ortelius, under the word *Varalii*.

and form the *Zem*, is occupied by the *Scodrans*, and by the *Pannani* who are neighbours of the *Colascinians* or *Kolascians*, a tribe of fierce mountaineers, whose bands have often desolated *Herzegovina* and *Bosnia*; their country extends perhaps from the mountains of *Ibali* to the sources of the *White Drino*. The districts between the rivers which flow into the lake of *Zenta* and the western feeders of the *Drino* are peopled by the *Clementi*, a catholic tribe whose bishop resides at *Saba* or *Sarda*. The position of these places is almost unknown; many more villages are marked in the map of Upper Albania, published at Rome in the year 1692 by the college *de Propaganda fide*, than in any other of later date. The courses of the *Moraca* and the *Zem* are so imperfectly known that it is impossible to say which is the principal river. No geographer has determined the extent of *Arnaouluk*, a country that borders on *Rascia*, *Macedonia* and *Bosnia*, and is peopled by *Servian* and *Albanian* savages.

The Albanians might become formidable to the *Ottoman* empire; their hireling sword is at present its chief support; the rugged and mountainous nature of their country tends to confirm them in their warlike habits. "Every man born in Albania," says *Pouqueville*, "may be distinguished by his physiognomy, temperament and character from the Greeks and the Turks." Strong, active and patient of fatigue, they were the soldiers of *Pyrrhus*, *Scander-Beg*, and *Ali Pacha*. "The Albanian troops endure the utmost rigours of winter; while day-light lasts, they are employed in their camp in wrestling or other warlike exercises; their temperance and sobriety are so great that a very small ration of bread made of wheat or maize, and of black olives or salted pilchards, is sufficient for them; the happiness of the Turk consists in indolence, that of the Albanian in action; but the latter is not excited by glory or patriotism; unless he be bribed, he seldom leaves his rugged mountains."^a Their leaders are as much venerated as ever were *Highland* chieftains by their clans; and the services of these mercenary captains and their numerous dependants, may be purchased by any government.

The women in the same country are strong and healthy; their temperate and frugal diet secures them against many diseases; they are not so early marriageable as the women in southern Greece, but they retain their looks longer, and give birth to children at a more advanced age.

Although most of the Albanians profess *Mahometanism*, many of them are not very scrupulous about its precepts; few have more than one wife, and the contrary custom observed by some wealthy chieftains, is more a matter of fashion than of conscience. Although ignorant of the sciences, they know how to cut canals and bring water into their towns; unprovided with mathematical instruments, they can measure heights and distances with as much accuracy as a geometer. *Mahomet Ali* and *Ali Tepelenli* have shown what the genius of the Albanians can effect in a state of ignorance and barbarism; the devoted and heroic fidelity of *Mustapha Bairactar* to the emperor *Selim*, is a proof that the Albanian character is not incompatible with exalted virtue.

The Albanians are probably a tribe of the ancient Illy-

rians, that migrated from the inland and mountainous countries, and became known when the weakness of the Roman empire compelled the mountaineers and shepherds to trust to their own strength for the defence of their possessions; but it is not to be imagined that a primitive tribe, or one which has remained unmixed during two thousand years, exists in a country like European Turkey, peopled by different nations that are confounded with each other.

It has been shown from the language of the Albanians, that they have inhabited Europe as long as the Greeks and Celts, with whom they appear to have been connected; it is not unlikely that Illyrian tribes, whose language resembled the one spoken by the primitive tribes of the *Pelasghi*, *Dardani*, *Graiki*, and *Makedones*, inhabited the Albanian mountains before the time of history, and were governed by hereditary chiefs, and that they were also situated near some tribes of that race which has been since called Slavonic. The Illyrians sent numerous colonies into Italy, but at the period of the great Celtic invasion in Greece and Asia, some of the Illyrians, among others the *Albani*, were subdued by the warlike Celts and Germans, in the same manner and much about the same time that the conquest of *Galatia* was effected. The Romans and Italians who made themselves masters of *Illyria* in a later age, were incorporated with the inhabitants of the towns, and from that period the pastoral tribes were distinguished by the Celtic name of *Albani*; the main body of their language was retained, but increased and corrupted by the addition of words and phrases in the vulgar Italian or *Romana rustica* and the military jargon of the legions. These changes, and the fact that, in ancient times, the *Æolian*, the *Pelægian*, and perhaps the Illyrian, had some affinity with the Italian, enable us to explain the affinities of the Albanian and the *Daco-Latin*, or modern *Walachian*, a language originally formed by a mixture of the *Dacian* language, now unknown, with the rustic and military dialects of the *Romans*; but the one and the other were again altered in the tenth century, when numerous hordes of *Carpathian Slavonians*, commanded chiefly by princes of the Gothic race, re-peopled the north of *Illyria*.

It is thus that a new system may be established, of which *Leibnitz*^b and *Paulmier de Grentesmenil*^c were not ignorant; it was in some degree elucidated by *Masci*^d and *Thunmann*^e, but involved in numerous difficulties by *Dolci* and *Sestrencewitz*.^f Were it connected with the researches of the orientalisists, much additional light might be thrown on the history and ancient geography of Greece, Italy and Asia Minor. As the Albanian language is the living monument on which the whole depends, we shall examine it more fully; if we enter into a digression, it cannot be considered out of place in a geographical work.

It is admitted, nay it has been partly proved by philologists, that a number of languages^g spoken in different countries, which extend from the banks of the *Ganges* to the shores of *Iceland*, bear some resemblance to each other. If that fact be kept in view, the mixed nature of the Albanian language cannot be thought a local and particular phenomenon, as it was considered in the time of

^a The Albanian soldiers are called, in the original, *Palikaris*. "Palikar is a general name for a soldier among the Greeks and Albanese who speak *Romaic*."—*Byron*.—P.

^b Leibnitz, Collect. VI. p. 2. p. 138. *Annal. des Voyages*, III. 157.

^c P. de Grentesmenil, *Græcia Antiqua*, p. 213, &c.

VOL. II.—NOS. 93 & 94.

^d Masci, *Essai sur les Albanais*. *Annal. des Voyages*, III. 145.

^e Thunmann, *Untersuchungen über die östliche völker*.

^f Dolci, de præstantia Linguae Illyricæ. *Sestrencewitz*, *Recherches sur les Slaves*, &c.

^g "Les langues japhétiques"—the Japhetic or Indo-European languages.

Leibnitz, but it may be accounted for by the analogy that pervades all the Indo-Gothic tongues. Hence Albanian words may be coincident with Latin, Sanscrit, or German words, and yet be indigenous. Thus the word *gneri* signifies a man in Albanian, and corresponds with *aner* in Greek, *nar* in Persian, Sanscrit and Zend, and with *nero*, a strong man, *nerienne*, virile strength, in the Sabine, an ancient Italian dialect. Another remarkable instance may be adduced; *ziarm*, the Albanian word for fire, corresponds with *tjern* in Armenian, *thermos* in Ionian, *tharmos* in Æolian, *garm* in Persian, and *warm* in German. These examples show that the words are similar, but it cannot be determined that any one of them is derived from any other. In the same manner *reg*, a king, in Albanian, is not unlike *rex* in Latin, *rix* in Celtic, *regin* in Icelandic, *radja* in Sanscrit, and numerous other synonyms, the priority of which it is impossible to ascertain. The same remark is applicable to the grammar of the Albanian language; if it be in many respects like those of the Greek and Latin, it is a proof of its relation or connection with these tongues, not of its derivation from them; it is certain that there must have been grammatical systems in Phrygia, Thrace and Illyria at the same time or even at an earlier age than in Greece. Illyria as well as Bœotia may claim the inventions of Cadmus.

Some Sanscrit words of a geographical nature, must be remarked by every one who studies the Albanian. *Mai*, a mountain in general, (whence *Maina* in Thessaly and the Peloponnesus,) and *gour*, a rock or hill, are common in Albania; Candahar and Candavia have the same signification; these instances are by no means exceptions to the rule; with equal probability we may derive from the Sanscrit and much more readily than from the Greek, the words Hæmus, Pindus (Bindhia, or Vindia, in Indostan,) Parnassus (Paranisha,) and Kynthos;^a it follows from these and other examples of the same kind, that a connexion subsists between all the *Japhetic* languages, of which the high districts in Armenia might have been the common centre.

As to the character of the Albanian, it may be affirmed that more than a third of its primitives are Greek roots reduced to their primitive, barbarous and monosyllabic form; it is equally true that the Greek words in the Albanian are most closely allied to the Æolic dialect, which did not differ radically from the ruder and older language of the Pelasghi,^b and which might be considered the basis of the ancient Macedonian, Epirotic, Thessalian and Bœotian; thus the Albanian might have been originally an ancient semi-Greek dialect, like such as were spoken before the time of Homer; another third of the roots appears to be common to the Latin, Sabine or Samnite, Italo-Celtic, German and Slavonic, and in general to all the languages spoken in the central and western regions of Europe. But no reason has yet been alleged, which could enable us to determine whether all its relations with these languages are of ancient date, and existed at the epoch when most of the European families inhabited the high countries in the peninsula of Hæmus and Pindus, or whether they are later modifications resulting from different causes, among others, from the changes introduced by the Roman military colo-

nies. The remaining roots have not been traced to their source; but from the analogy of geographical names, it is probable that they are not widely different from others in the ancient languages of Thrace and Asia Minor. We shall subjoin the proofs of these assertions, from which it may be inferred that the Albanian language is not only one of high antiquity, but serves to illustrate others of Pelasgo-Hellenic origin.^c

The Æolic roots may be shown by the application of the digamma, the metathesis of the letter R, or by other changes peculiar to the Æolic dialect. Thus the Greek word *tragein*,^d to eat, becomes in the Æolic form of the infinitive, *tragen*, and by the metathesis of the R, *targen*; hence the Albanian term *darkem*, to eat. The pronoun *I* is expressed in the Albanian by *oun* and *oune*, which are the same as the *ion* and *ionga* of the Bœotians, and the *egon* of the Æolians. *Bale*, the head, in Albanian, corresponds with the *bala* of the Macedonians, and the *phala* of the Bœotians, which are both Æolisms that were used instead of *kephala*. The Albanian name for Slavonia is *Schienia*, the country of strangers, from *skenos*, the Æolic form of *xenos*: the Æolic word *skiphos*, a sword, may perhaps account for *Skipatar*, the name which the Albanians give themselves, but the meaning of which has not been explained. The digamma appears in many words; thus *vraam*, to kill or injure, from *raiein*; *vel*, oil, from *elaion*; *verbuem*, to bereave, from *orbare* (Latin); *verra*, fine weather, from *ear* or *er*, the spring; in like manner *Voiousa*, the name of a river, is the ancient Aous or Aios. The Albanian is by means of its Æolic character connected with the Macedonian; *Loos*, the Macedonian name for the month of August, corresponds with the *Loonar* of the Albanians; the first and second *brit*, the names of two months in Albanian, recall to our recollection the *beritios* and *hyperberitios* in the Macedonian calendar. *Krios*, a word used by the Macedonian peasants, is analogous to the Albanian *kirsouer*, for *ouer* signifies a season.^e We have entered on a subject, which cannot at present be fully treated; no entire vocabulary of the Albanian language exists; the indigenous names of all the months have not hitherto been collected.

The Pelasgic character has been evinced by a curious and important fact. The names of several Greek divinities, according to Herodotus, are derived from the Pelasgic. Now in the Albanian language, *deet* signifies the sea, whence probably *Tethys* the goddess of the Ocean; *dee* the earth, whence *Deo* and *Demeter*, names of *Ceres*; *here* the air or wind, whence *Here*, *Juno*; *dieli* the sun, whence *Delios*, a surname of *Apollo*, the god of the sun; *vranie* a cloud, whence *uranos*, the heavens. Herodotus mentions *Juno* only among these divinities; but these examples are enough to show that some of the most ancient Greek words have been preserved in the Albanian language; besides, Herodotus, from his own confession, was ignorant of the Pelasgic; after having said that the Pelasghi were of a different origin from the Greeks, he tells us however that they were the ancestors of the Athenians, Arcadians, and Thessalians: it may therefore be reasonably believed that the historian has accommodated the mythology of the Pelasghi, to that of the Egyptians and Lybians. The Pelasghi were

^a Kynthos in the island of Delos, the island of Zakynthos, Arakynthos in Attica, Anakynthos in Acarnania, Berekyntos in Crete, Idem in Phrygia, from Kuntha, a sacred hill.

^b See Paulmier de Grentesmenil, Græcia Antiqua, p. 54, 55.

^c "From these three assertions it may be inferred, that the Albanian lan-

guage is an ancient and important link in the Pelasgo-Hellenic branch of the Indo-Gothic languages."

^d Τρωγειν ?

^e See Usserius, de Maced. et anno solari.

supposed in ancient times to have been the first people who ruled over Greece; they inhabited Pindus at a very early period; the Pelasgic Dodona was the centre of their worship, and their descendants were the people who styled themselves *Autochthones* or *Aborigines*. It is not wonderful that an old, rude, and monosyllabic dialect, although of semi-Greek origin, appeared unintelligible to an Ionian like Herodotus: the very name of the Pelasghi, as well as those of Pella, Pellene, Pelion, Peligni, and twenty others of places and people, may be explained by the old Macedonian and Thessalian word *pela*, a rock or stone,^a which corresponds with the Albanian *pul* or *pil*, a forest. It is vain to regard the hypotheses of different writers, or to make the Pelasghi come from the sources of the Nile, the summits of Caucasus, or *the tower of Babel*; they were in reality the ancestors of the Greeks, the people of the old rock, the stone builders; their worship was wholly European, and founded on the belief of a supreme being and inherent powers in nature.^b

The names which geography, and particularly physical geography, has consecrated, may be considered the most important documents of primitive history, or of history anterior to chronology. Men, long before they thought of computing years, or arranging events according to the order of their dates, designated by local denominations, taken from the dialects in which they spoke, all the objects that surrounded them; the mountains that bounded their horizon, the rivers in which their thirst was quenched, the village that gave them birth, and the family or tribe to which they belonged; had that geographical nomenclature been preserved pure and entire, a map of the world might have been obtained, more valuable far than all the universal histories.

It is often necessary, in order to discover the Hellenic structure of the Albanian language, to compare words that are not of common occurrence, or such as are used in dialects little known; thus *groua*, a woman, corresponds with *Graia*, a Grecian woman; *kourm*, the body, with *kormos*, the trunk of a tree; *khunde*, the nose, with *chondros*, cartilage; *dora*, the hand, with *doron*, the palm of the hand; *ziza*, a nipple, with *tithos*; ^c *groust*, the fist, with *gronthos*; *cambe*, the foot, with *kanpe*, flexion; *ngrane*, to nourish, with *græin*; *flacha*, a flame, with *phlox*; *krupa*, salt, with *kruos*, crystal; *stepci*, a house, with *stephos* a roof or covering; *brecheir*, hail, with *brechein*, to wet, and *eir*, a tempest or thunder; *iourte*, prudent, with *iotes*, prudence, (Homer); *iri*, young, with *ear* or *er*, the spring; *kouitou*, I remember, with *kotheio*, I think; ^d *ve*, an egg, with *oveon* a word used in the Cretan dialect; *chata*, poverty, with *chatein*, to want; *skeptim*, thunder, with *skepto*, I fall with force; *phare*, a division or tribe, with *pharos*, the *pars* of the Latins; *prink*, a father or chief, with *prin*, before (*primus*;) *frike*, fear, with *phrix*, trembling; *bastakes*, a Bœotian term for landholders, ^e with *bastine*, a rural domain, in Albanian. We have cited such examples as are not very obvious, the relation between which is not at first discovered; but a great number of analogies more evident and

more easily traced, must strike those who study the language. Many Albanian and Greek words differ only in their grammatical forms; thus *piim* and *piein*, to drink; *ponouem* and *ponein*, to labour; *zieim* and *zein*, to boil; *luem*, to anoint, *luam* to wash, and *louein*, to bathe; *pituem*, to ask, and *puhesthai*; *prim* and *proienai*, to advance, to go forward; the prepositions, *nde*, within, (*endon*;) *pa*, without, and *apo*, from; *me* and *meta*, with; the adverbs *mo* and *me*, not; and other instances too numerous to be adduced.

It is observable that some Albanian terms are Hellenic compounds, although there are no single words corresponding with them in the Greek. *Panomi*, the Albanian term for anarchy, is formed from the preposition *pa*, which is not different from the Greek *apo*, and *nomos*, law; it may therefore be considered the same, as the old or obsolete Greek term *aponomia*. The Greek word *hippos*, a horse, was probably derived from the same root as the Albanian verb *hippune*, to mount or leap. The names of mountains and people in primitive Greece, were perhaps of Albanian origin.

The Albanian words derived from the Latin might have been introduced at different epochs; at all events it is not easy to determine the relation between these two languages; some etymologists observe an analogy in the Æolic, the Albanian and ancient Latin; but much of the resemblance between the two last may be attributed to the mixture of the Celtic with the Albanian and old Italian dialects; besides, the Roman military colonies must have disseminated the *Romana rustica* in Illyria and Epirus. If the history of the Tyrrhenians and other Italian tribes were not involved in obscurity, more accurate notions might be formed on the subject, but it is easy to adduce several instances, by which it must appear that the Albanian is connected with the dialects of ancient Italy.^f *Kiel*, the heavens, *cælum*; *lioume*, a river, *flumen*; *mik*, a friend, *amicus*; *sok*, a companion or ally, *socius*; *lake*, a marsh or lake, *lacus*; *flochete*, hair, *flocus*; *lyfta*, war, *lucta*, a struggle; *pische*, a fish, *piscis*; *aar*, gold, *aurum*; *peeme*, fruits, *poma*; *remò*, a branch, *ramus*; *fakie*, the face, *facies*; *maruem*, to marry, *maritare*; *turbuem*, to trouble, *turbare*; *pulhuem*, to please, *placere*; *desciruem*, to desire, *desiderare*; *kiaam*, to complain, (*chiamare*, Italian;) *vape*, warm, *vapidus*; *spess*, thick, *spissus*; *cundra*, against, *contra*; *nde*, within, (*endo*, old Latin,) *per*, by or through, *per*. It may be remarked that the Latinisms or Italianisms in the Albanian are very like those in the Walachian, or Daco-Roman. The following circumstance alone may, in some measure, show how long the Albanian has been connected with the Latin. The word *mi* expresses the comparative in the Albanian, and is analogous to the irregular comparatives *minor* and *melior* of the Latins.^g *Ssum*, the term for the superlative, (or according to its pronunciation, *schoume*,) appears to be the same as *summe*.

To ascertain the Celticisms and Germanisms in the Albanian is by no means an unprofitable task; they cannot be attributed to accidental causes, for these words form

^a Sturtz, de Lingua Macedonica. Tzetzes, Chiliad. II. c. XVII.

^b "Des forces elementaire de la nature."

^c Γειθος, γειθη, a nipple.

^d Κορω, sentio?

^e "Propriétaires fonciers," possessors of real estate.—P.

^f "The relations of the Albanian with the Latin are very difficult to determine, since they may have arisen at different periods. Some of them are owing to the ancient connexion between the Æolic and Pelasgic, and the primitive Latin; others proceed from the mixture of the Celtic both with the

Albanian and the ancient Italian dialects; and others may be referred to the introduction of the *Romana rustica*, by the military colonies, in Illyria and Epirus. Undoubtedly a better acquaintance with the history of the Tyrrhenians, and other nations of ancient Italy, might throw additional light upon the subject; but the following examples are sufficient evidence that the Albanian language is intimately connected with the early Italian dialects.

^g "Is analogous to *melior*, *micux*, and *mehr*."

part of a numerous class in different languages ; thus *larth* in Albanian, *lard* in French and English, *lardum*, in Latin, *lar*, fat, in Celtic, and *larix*, *læriche*,^a *lærk*, *larche*, a resinous tree, in Latin, German, Danish and English, indicate a resemblance between the northern and western tongues. *Bret*, a king, *breteri*, a kingdom, *brii*, a horn, *bar*, grass, *bres*, a girdle, *droe*, dread, *brittune*, to diffuse or radiate, and *bleem*, to buy, are evidently Celto-Gallic words. *Miel*, flour, *buk*, bread, *hethe*, fever, *gostie*, a feast, *chierr*, a car, *cand*, an angle, *gind*, kind, *tim*, smoke, (*dimma*, vapour, in Swedish,) *sciu*, rain, (shower,) *nata*, night, *dera*, a gate, *uil*, a star, in the dialect of Epirus, (*ild*, fire, in Danish,) *bir*, a son, (*baern*, *bairns*, children, in Danish and Scotch,) *oullk*, a wolf, *siou*, eyes, *ve*, an oath, and many others, are almost literally German or Gothic. It is difficult to account for these facts from the migrations of different people, but they may be easily explained, if we admit that the ancient population of Hæmus was made up of Celtic, Slavonic, and German tribes, as well as Pelasgian, Hellenic and Asiatic.

We now come to the third division of the Albanian language, which consists of unknown roots, or at least of such as have not hitherto been explained. We might at first have been inclined to leave the examination of the subject to orientalists, and to suppose that these words were exclusively of Asiatic origin, because they are apparently foreign to every known European language. But as we have occasionally been able to account for some of these roots, and to connect them, in spite of their irregularity, with the Hellenic and other European dialects, we have been led to conclude that the primitives of a pure and indigenous language, like the Albanian, must have been at one time common to the Thracian, Illyrian, Phrygian and Lydian, and that its unknown roots are not the least valuable part of each or all these languages. The Albanian, according to this hypothesis, might become as useful in a historical point of view, as the language of Orpheus or Deucalion, and might enable us to explain the meaning attached to the names of many ancient people and places. We have been able in the present imperfect state of our information,^b to interpret some of these words ; thus, it is likely that Mount Scardus has been so called from its indented peaks, for *card* and *scarra* signify a saw, (*sierra*.) The Scomius is a very high mountain, (*scume mal*;) the passes of Succi in Hæmus extend across small hills, (*sukhe*.) The Oeagrius, or Hebrus, is the river near wild woods ; the Pontus abounds in marshes ; the Dryn is shaded with forests.^c Vedi (Aous) signifies water, and Voioussa, a never failing stream. Mount Bora has derived its name from its snows (*bora* or *bdore*,) and the Bernus probably from *perrune*, a torrent ; Candavia is a rugged country, traversed by winding or angular roads (*candoign*.) But, without entering into more minute details, if the names of the districts, mountains, and rivers in the country between the Achelous on the south, Mount Balle on the northwest, and the Scomius on the north, are for the most part of Albano-Illyrian origin, it may be allowed

that the study of the Albanian is connected with that of geography. It might furnish us too, with some interesting ethnographical indications, and serve to explain the different names that have been applied to the Albanians.

A native of the country calls himself an *Arvenesce*, according to Ibarthe, and a *Skipitar*, according to Thunmann. The last name, it has been said, is derived from *skip*, which denotes the language ; hence *Skipitar*, he who speaks *Skip*, and *Skiperi*, the country in which *Skip* is spoken ; but no signification has been assigned to the word itself. Ancient geographers describe the Albanians as a mountainous and wandering people, early historians inform us that they became afterwards a warlike nation, hence it may be thought more probable that *Skipitar* means an armed man, or one provided with a sword or *skiphos*.^{de} The word *Albanian*, though long forgotten by them, is perhaps as ancient ; the mount Albanus of Ptolemy is the *Albia* or *Albion* of Strabo, and the commentators are not to be commended, who would efface the *Albani* and *Albanopolis* from the text of Ptolemy ; with equal justice, all the *Albæ* and *Albani* in Italy, Gaul and Spain might be obliterated from the ancient maps of those countries. *Albhain* in Gælic, and *Alb* in Germanic, signify mountain pasturage ; from such facts it may be inferred that the name of the *Albani* is indigenous and of very ancient date ; it is also likely that *Arbenesce*, or as it is written by the Byzantine historians, *Arvanitiæ*, is a corruption of *Albanitiæ*. This term, which the Turks have changed into *Arnaut*,^f is perhaps derived from the Slavo-Illyrian *arvanie*, war or combat ; if that be the case, it is only a literal translation of *Skipitar* or *Schypetar*.

The names of the Illyrian tribes appear to be also of Albanian origin ; the *Parthini* or *Parthyeni* in Illyria, were the white or fair people, (*i barthe*,) and wholly distinct from the *Parthians* ; the *Dassaretæ* were the isolated tribes ; the *Dalmatæ*, or *Delmatæ*, signified the young. There is a meaning in the names of many Albanian towns and districts ;^g the port of *Eled* or *Élet*, described by *Scylax*, is the *Elea*, mentioned by other writers, with the termination of the Albanian genitive. If so many geographical terms can be explained by means of the language still spoken in ancient Illyria, why should its origin be sought in *Caucasus* ? It may be of use to compare these indications with others obtained from the ancient *Macedonian*, and it may be better to confine our inquiries to the countries known to the *Greeks*, than to examine the regions beyond the *Euphrates*, from which it is not likely much information can be gained concerning the *Mædi*, the *Lydi*, the *Pelasghi*, the *Phryges* or *Vrighes*,^h and other people in the north of Greece.

The unknown primitives in the Albanian are perhaps ancient Illyrian words ; and if that opinion be correct, the inquiry may be limited to the countries within and near the boundaries of Illyria. It has been ascertained that several Thracian words were not in use in Illyria and Macedonia, among others *bria*, a town, and *para*, a height or elevated place ; t may be added that the termination in *issos*, *itza*,

^a Larche.

^b Diction. Epirot. by Bianchi (Ibarthe,) incorrectly called Biondi by Major Leake. Vocabulary in Leake's Researches in Greece, and those by Thunmann and Pouqueville. MS. glossary in the library of the king of France. MS. fragments of a grammar by Vellara.

^c Oeagrius signifies "the water of wild forests;" Pontus, "the river forming lagoons;" Dryn, "the river of the woods."

^d *Tar*, *itar*, and *atar*, are Albanian terminations, which denote a profession or trade ; and they correspond with the *arius* and *tor* of the Latins.

^e "If we reflect that the Albanians first appeared in geography as a pastoral race of mountaineers, and in history as a military people, we may naturally conclude that *skipitar* signifies an armed man, or one skilled with the sword (*skiphos*)." ^e "Arnaout."

^f "In general, the names of people and towns have a meaning in Albanian." ^g Bryges.

dava, and *ava*, are most common in the Thracian-Getan dialects; and the Illyrian, if it did not form a separate class, was a branch distinct from the Thracian. It is not easy to account for the introduction of Strymon, a Slavonic and Germanic word, and the name of a river, (*Strzumien*, in Polish, *Strøm*, *Strømmen*, *Strøm*, &c. in Scandinavian;) to trace its connexion with the Albanian, is like an attempt to discover the original form of an edifice wholly in ruins.^a The Dardani, an Illyrian people, who, according to an ancient tradition, were the ancestors of the tribes dispersed in Troas, Epirus, and Italy,^b might have been of Albanian origin; Ilion is an Albanian word, which signifies a high place; there was not only a small town called Ilion, in Macedonia, but a mountain of that name in Laconia. It is as rash to reject these indications as to found any conclusion on them, in the present state of our knowledge or ignorance; much greater information must be obtained, before it can be determined whether the early population of Italy were connected with the Ombrici and Siculi of ancient Illyria, or with the *Toskes* of modern Albania.

The Albanian language has been considered in its relations to geography and ethnography; some remarks may be made on its grammatical structure.^c

The Albanian has some resemblance to the Latin, the Greek, and the Slavonic; but it is not so rich as the two first, and its constructions are less varied than those in the last.^d It abounds in auxiliary words; thus to express the adjective idle,^e it is necessary to say, *Të paa pune*, (literally in Greek, *Toi apo ponou*,) those without occupation. Its derivative substantives are of two forms; the one corresponds with the *arius* or *tor* of the Latins; the other with the *erei* or *erie* of the Germans. Thus, from *lusta*, war, is derived, *lustetar*, a warrior; and from *bret*, a king, *breteri*, a kingdom: but the most of the derivative substantives are infinitives, preceded by the neuter article; thus, *te pym*, drink, is derived from *pym*, to drink,^f and is the same as if we said in Italian, *il bere*, or in French, *le boire*. The physical terms are more numerous and more varied than we might be apt to conclude from perusing the printed treatises on the subject; but there are comparatively few words that indicate the faculties or operations of the mind.

The article is generally put at the end of the substantive;^g thus, *groue*, woman, *groueia*, the woman; *gour*, stone, *gouri*, the stone; *barck*, belly, *barckou*, the belly: but the same rule is not applicable to the adjective; thus *mir* signifies good, and *i mir*, *e mire*, *te mire*, are the same word with the masculine, feminine, and neuter articles prefixed to it. The declension of the pronouns is regular; the first and second persons are in some respects analogous to the Latin. There are ten conjugations, according to Lecece; but that number may be reduced to eight: they are distinguished by the infinitive; four terminate in *am*, *em*, *im*, and *oum*, or in the same manner as the four present tenses in the Armenian; two in *ane* and *oune*, and two in *le* and *re*. Most of the present tenses end in *agn*, *egn*, *ign*, and *ogn*, and the greater number of the preterites in *ava*, *eva*, *iva*, and *ova*. It is not unlikely that the Albanian verb is

made up of two distinct formations, introduced at different periods; the first or earliest depends on the four vowels, *a*, *e*, *i*, *o*; the second must be attributed to successive additions or innovations. This is the greatest difficulty in the study of the language, and must be carefully kept in view in distinguishing the Illyrian forms in the Albanian, from the Pelasgo-Æolian. The infinitive is always preceded by the article *me*, when the sense is active, and by *meou*, when the sense is passive or reciprocal. The imperfect, perfect, future conditional, imperative, infinitive, and participle, are formed by inflections, and the other tenses by means of the auxiliary verbs *to have*, and *to be*. The passive is formed by the verb *to be* and the infinitive of the active voice, which is changed into a supine by the omission of the article *me*.

The Albanian grammar is remarkable for its originality; it may be considered a monument of the simplicity of the nation for which it was framed; such might have been the grammatical systems of Orpheus, Linus, and Cadmus.

The Albanian books published at Rome by the College *de Propaganda fide*, are printed in modern Italic characters, with the addition of four other letters; the Albanians themselves make use of the modern Greek alphabet, also with some additional letters. But there is, if we may so term it, an ecclesiastical alphabet, which consists of thirty letters; and many of them are not unlike the Phœnician, Hebrew, Armenian and Palmyrenian characters; few of them have any resemblance with the Bulgarian or Mæso-gothic, and we look in vain for the Pelasgic, Etruscan or Runic letters. This alphabet, in its present form, was probably constructed by Christian priests, either in the second century when Christianity was introduced into the country, or in the ninth when the Albanian church was united with that of Rome; but it is evidently derived from other alphabets, much more ancient, which at one period were used in Illyria, Macedonia, and Epirus.

The national Albanian songs are illustrative of the manners of the people; it might be worth while to know them, although there may be none of them more ancient than the time of Scanderbeg. An examination of the inscriptions which in all likelihood exist in Upper Albania, might throw additional light on the history and languages of ancient nations.

It is in the country of the Mirdites and Lac-Oulacs, or in the town of Scutari, that the traveller may reasonably expect to gain information concerning the barbarous manners and customs which the Illyrians have transmitted to their descendants the Albanians. The division by *cellas* or *pharas* was mixed with feudal customs by the Christian Albanians, who migrated into the kingdom of Naples; but in Albania itself this institution is more connected with the character of a democracy. The *cellas* in all the mountains of Upper and Central Albania, make war on each other in case of murder, rape, and adultery; these crimes can only be avenged by the blood of the guilty; but theft is not a capital offence; he who steals an ox may escape

^a "The Slavonic and Germanic word *Strymon* (Polish, *Strzumien*; Scandinavian, *Strøm*, *Strømmen*, *Strøm*, &c.) stands as an insulated monument of some ruined fabric."

^b Homer, Virgil, Pliny, Lycophron, &c. I am aware that the learned Niebuhr has considered the migration of Æneas as a fable; but the migrations of the Dardani might have been true, independently of the poetical fictions with which they have been mixed.

^c *Osservazioni Grammaticali*, by F. M. Lecece, Rome, 1716. Leake, Re-

searches in Greece. Vater, *Tables comparatives*, &c. 1822. Vellara, *Fragmens MS.*

^d "It is not so rich in forms as the two last, and its forms are less regular in their derivation."

^e "Fuinæans," idlers. It is properly the plural substantive form.—P.

^f *Me pym*, in the infinitive.—M.B.

^g "The substantive has an absolute form in the vocative, and a definite form, marked by a terminal article, in the nominative."

punishment by paying a sum of money. In the rural assemblies of the *cettas* the members often deliberate with their swords in their hands; some individuals mark their skin with gunpowder, that they may more readily know the *cetta* to which they belong; a similar practice existed among their ancestors, the Illyrians. The sacrifice of a young woman, a wife and a mother, is recorded in the national songs. Three brothers founded the town of Scutari and interred their sister alive near the castle; the rural genii^a had assured them, if that condition were fulfilled, that the town would be always abundantly supplied with provisions. The victim implored her husband, (and he too was her brother,) that she might be permitted to nurse her infant; her milk flowed miraculously through an aperture in the grave; and afterwards an ever-failing fountain, efficacious in the cure of all diseases, rose from her ashes. The Schypetar converses occasionally with the Mires or good goddesses,^b and the mountaineer in the interior of Upper Albania believes, like the Servian, in supernatural prophetesses or Vyles;^c witches, though greatly feared, are well known under their ancient Latin and perhaps Thessalian name of *striga*. Christian and Mahometan women in Albania attend funeral processions, and make the air resound with their inhuman yells. The Albanian hunters and shepherds have many traditions concerning wild beasts, the habitations of souls banished from eternal repose; but it is possible by means of enchantments and anathemas to dislodge these wretched spirits from their prison house.

The fishermen on the north of lake Scodra take a kind of fish, which they call *scoranza*, in the following manner:—a species of crow that is held sacred, arrives in great flocks at certain seasons of the year;—the fishermen cast their nets in the rivers and lakes;—the Iman or Greek priest pronounces his benediction;—the crows, it is said, remain while that ceremony lasts, at the edge of the water or on the branches of trees, without making the least noise. The consecrated grain is afterwards thrown into the stream; it floats on the water and attracts many fish to the surface; then, and not till then, the crows dart on them with hoarse-sounding cries, and the frightened fish are easily caught in the nets; a portion of the draught is regularly set apart for the crows and priests, and these animals seldom fail to accompany the fishermen.

The district of Montenegro, or the Slavonic Czerna-Gora, the Turkish Kara-Tag, and the Albanian Mal-Isi, is about 150 square leagues or 1350 square miles in superficies; it is inhabited by a robust, warlike and turbulent population of 58,732 individuals; but in that number are included the inhabitants of five Servian-Greek villages, and of five Albanian catholic villages, the former amounting to 13,600, the latter to 6880 souls. These villages are allies of the Montenegrines, and are situated beyond the limits of the district. According to the most accurate estimation, Montenegro has a surface of 96 square leagues or 864 square miles, and not more than 38,252 inhabitants. This population is divided into four *najas*,^d and

^a "Fées," fairies.

^b These divinities have been considered the *Moipai* or fates of the ancient Greeks; the names of both are pronounced in the same manner. Although the Mires worshipped by the Athenians and the inhabitants of Hellas might have been the *Moipai*, it does not follow that they were the same with the Illyrian Mires. Mir, with the articles, *i, e, te*, prefixed to it, is the Albanian adjective for *bonus, a, um*, and corresponds with the ancient Greek word *ἰμερος* or *ἰμερος*, desirable.

^c Vyle is of the same class as *Si-bylla*, or according to the Greek pronun-

governed by a sovereign council; the members are the captains or *sardars* of each *naja*, the *knez* or chiefs of every village, and those among the aged, who are most revered by the community. The assembly meets in the town of Cettina; the *vladika* or president does not possess much power, and is often restrained in the exercise of his just rights by the bishop of the diocese, who resides at the fortified convent of Stagnovich in the country that once belonged to the Venetians, and is at present attached to the Austrian empire.^e All the men in the district, from the bishop to the shepherd, are soldiers, and all of them are provided with fire-arms. The ambitious Mahmoud-Pacha was slain by Montenegrine troops, who have often defeated the Ottoman satraps of Scutari. The present bishop observing Austria and France divide the spoils of Venice, made himself master of the town and harbour of Budua, but being unable to contend against these powers, he relinquished his conquest. The Montenegrines are vindictive, jealous, and barbarous; but they are hospitable; their intercourse with one another is frequent, for they are all engaged in the same profession; patriotism is not unknown amongst them; they believe in communications with a world of spirits, and hold converse with the shades of their ancestors who wander in the clouds. The people are of Slavonian origin; they speak a Servian dialect, and form, to the great regret of the patriarch of Constantinople, a part of the Servian and Russian church. Their mountains are fertile in pasture, and in many places covered with flocks which are exported into the neighbouring countries; the valleys do not yield much corn, but a great quantity of wine. The allied districts on the north of the lake of Scutari are more fruitful, the mountains are better wooded, and the rivers better stored with fish; the inhabitants are not so dispersed as the Montenegrines; the former live near one another, the latter reside on their farms or domains. The free country which we have described is of small extent, but it and Servia may perhaps accelerate the dissolution of the Ottoman empire in the west.

Some remarks have been already made on the physical geography of Dalmatia, which is divided into two parts; the inland is possessed by the Ottomans, the maritime by the Austrians; an account of the latter shall be given in our description of Hungary; the former, or the Turkish territory, has successively been called the kingdom of Rama and the dutchy of St. Saba, whence the terms *hertze-govina*, a dutchy, and *hersek*, a duke,^f have been introduced into geography. The northeast extremity, where the Moraea waters its solitary valley, is inaccessible to travellers; but Tribunia^g is built in a calcareous and fertile country that is better known; its population amounts to 9000 souls; the most of the inhabitants were originally Servians, they have since become Mahometans; so great is their fanaticism, that the catholic bishop of the city is compelled to reside at Ragusa. There are no outlets for the rivers in the districts of Trebigne and Popovo; the latter is fertile in oil, corn and wine. The Trebinitza,

ciation, *Si-vylla*; *si* is an abbreviation of *sio*, an Æolic word, which signifies *theo*; a *subil*, then, is a divine or godlike Vyle. *Wyll* or *gwyll* is a Welsh word for a spectre or sorceress. *Vala*, of which the genitive is *valu*, means, in Icelandic, a supernatural being with the gift of prophecy.

^d Ivelio, (a Montenegrine,) *Annales des Voyages*, t. II. p. 381. Adrien Dupré, sur le Montenegro, *ibid.* t. XV. p. 119.

^e Notice sur le Montenegro, *Annales des Voyages*, t. IV. p. 220. Viala, Voyage dans le Montenegro

^f Germ. *Herzog*, a duke.

^g Trebigni.

after having received the waters of the Kliutch, throws itself into the river of Popovo, or, as appears to us more likely, it is then known by that name, and directs its course towards Narenta; obstructed by the mountains, it loses itself in a small lake or subterranean gulf. The course of the river is therefore at variance with the opinions of the Ragusans, who consider the Ombla as the subterranean outlet of the lake of Popovo.^a The whole of the water is not discharged into the gulf, so that the fields in the neighbourhood are inundated during the winter season;^b a pestilential vapour rises from the marshes on the banks of the Narenta; on the upper part of the river is situated the flourishing but ill-fortified town of Mostar, which is peopled by 12,000 inhabitants; its trade consists in arms; the swords of Mostar are not inferior to those of Damascus. The place has derived its name from a stone bridge over the Narenta, of a single arch fifty yards in width; it was built according to the plan of a joiner, a native of the town, after the Turkish architects had given it up in despair.^c The country in the vicinity of Mostar is covered with orchards, olive trees and vineyards. The town of Livno or Hliuno is situated in the high districts;^d it is surrounded by a rampart and ditch, and defended by three castles, and it commands the most important entrance into Bosnia; *kullas* or forts are built at regular distances along the roads, which are very bad, independently of their natural disadvantages;^e they are in many places strewed with trees or obstructed by mounds; carabines are fired on every side at the approach of strangers, a sort of salutation with which they would willingly dispense; the Turco-Bosnian garrisons are the most barbarous troops in the pay of the Sultan.

Bosnia is watered by a great many rivers, which flow towards the Save, and divide the country into a number of narrow vallies; the land, although not much assisted by art, for the inhabitants are indolent and barbarous, produces abundant crops; the most fertile districts are those on the banks of the Drinna, the Verbagna and the Korovitza; the soil in Bosnia Proper, Croatia and Rascia is almost every where of a fine quality; the vallies and the sides of the hills are covered with a thick layer of vegetable mould; the land is lighter on the summits, but not unfruitful.^f Such are the remarks of a French traveller, but they have been modified by a German author who frequently visited the country, and concluded from his observations that the greater part of the land in Bosnia is better adapted for the rearing of cattle than the culture of corn.^g Thyme, rosemary and other aromatic plants cover the rocky summits of the mountains; cherries, plums, pears, apples, quinces, filberts and walnuts grow in the northern part of the country; apricots, peaches, figs and almonds are the productions of the southern districts. The trees, though seldom pruned, and never grafted, produce fruit of a good quality; the pears and apples in particular, are remarkable for their size and agreeable taste. The grape seldom arrives at maturity in the mountainous districts, but it ripens in the country on the banks of the Drinna. *Slivovitz* or a strong drink made of plums, is taken by Chris-

tians and Turks as a substitute for wine; and all the lands in the neighbourhood of the villages are planted with plum trees. *Pekmes*, a sweet juice of the consistence of honey, is extracted from pears.

The vegetables cultivated in the gardens are melons, cucumbers, pumpkins, red and white beets, beans, peas, onions and turnips;^h cabbage is the chief article of food during winter; it is kept in casks in a state of fermentation. The different kinds of corn are wheat, maize and barley; the quantity produced exceeds greatly what is necessary for the consumption of the people, and the surplus, of which the value amounts nearly to £ 20,000,ⁱ is sold in Dalmatia and the Austrian states.^k Oats are cultivated in few places throughout Bosnia, but millet is a very common crop; bread is made of it, and the inhabitants declare that it may be kept longer than any other grain; it is said in support of their opinion that during a great famine which happened in the year 1791, the vizier commanded the officers in the fortresses to distribute among the people the provisions set apart for the garrisons; a granary full of millet was discovered in the fortress of Baniuluka, and although it had been there forty-two years, it still retained its freshness and nutritive qualities.

Bosnia is, in proportion to its size, more populous than the other provinces in European Turkey, but it might, if its cultivation were extended, support three or four times the number of its present inhabitants; the richest vallies and the sides of the hills are only cultivated; the rest of the country is covered with lofty forests. The oak, the ash, the elm, the beech, the poplar, the maple, the hornbeam, the aspen, and the birch, grow on the sides of the mountains; the summits are crowned with larches, firs and yews. A great navy might be built of the timber in the forests; the late emperor of the French was aware of the advantages that might be derived from them; by his directions, tools were forged in the country, and workmen were employed in cutting a road by which the French legions might penetrate into Illyria, and the Bosnian oaks be transported to the harbours on the Adriatic.

The rich meadows and pastures are grazed by numerous herds of oxen; though not so large or so well shaped as those in Hungary, they are probably of the same race. Wool forms an important article of exportation; the Bosnians are not indifferent about the breed of their sheep, which appear to be the same as the Hungarian. Teal and wild ducks frequent the lakes and rivers; the most common fresh water fish are trouts, pikes, carps and eels.^l The beaver is sometimes seen on the islands in the Save, and all the rivers are well stored with crayfish. The adder is perhaps the only noxious reptile in the country.

If Bosnia were well governed, its mines might become a source of wealth; it was probably at Slatnitza, a place on the road to Scopia, and about six miles from Traunick, that the Romans worked their famous gold mines; the excavations still remain, but so great is the superstition of the inhabitants that they never approach them. There are, according to a tradition which in all probability is correct,

^a The Ombla, the rival of the Timavus, is called the Arion by Pouqueville; but Arion, in Scylax, is probably a mistake of the copyist for Drion.

^b Busching, t. II. p. 734.

^c Hadgi-Khalfa, Roumili, p. 176. *Most* is a Slavonic word, which signifies a bridge.

^d In the elevated table-land, described p. 413.

^e Riedl's map.

^f Chaumette Desfossés, la Bosnie, p. 10.

^g Notices topographiques sur la Bosnie, Nouv. Ephemerides geographiques de Weimar, t. II. p. 36.

^h "Aubergine," *Solanum melongena*, the egg-plant, is also enumerated.—P.

ⁱ "4 millions francs."

^k Desfossés, p. 128.

^l "Lottes," eel-pouts, (*Gadus Lota*, L.)

gold mines on several mountains near Zvornick and Varech; particles of native gold are rolled down the Bosna, the Verbatch, the Drina and the Latchva; but the Turks seldom suffer any to be collected; it is alleged as the motive of their conduct, that they do not wish to excite the avidity of the Christians. Many silver mines were worked in the time of the catholic kings before the arrival of the Turks, but all of them have been long since neglected. The richest were situated in the neighbourhood of Rama or Prezoz, Foinitca and other towns or villages, which on account of their productions are called *Sreberno*, *Srebernik*, and *Srebernitza*. An ore containing quicksilver is found near the convent of Kressevo; but the iron mines are the most valuable of any in Bosnia, they have contributed most to the resources of the country, they are the principal channel to which national industry is directed; more than two thousand men, a third part of whom are Catholics,^a are constantly employed in these mines, which contain besides iron, arsenic and orpiment. A lead mine was discovered near Olovo between Kladaï and Varech.

Although salt is imported into Bosnia, it may be obtained in several districts. There are at least seventy or eighty salt pits in the valley of Touzla-Velika;^b their diameter for the most part is about six feet, and water is generally found at the depth of four or five. The water is boiled in large caldrons until it passes off in vapour, and the sediment left is white salt of the best kind; a small quantity only is collected, and from its high price the use of it is exclusively confined to the rich; forty or fifty pits of the same sort have been dug in another valley,^c about eight miles^d from the former; the mines of rock-salt in the neighbourhood of Tartchin might be profitably worked, but no labour has as yet been bestowed on them.

The climate of Bosnia is variable and modified by the difference in the height of different districts; the winters are mild in the fruitful plains near the banks of the Drina; the cold is severe in Croatia and the mountainous country; the land in that part of Bosnia is during six months in the year covered with snow to the depth of several feet; Reaumur's thermometer has been frequently observed between twelve and eighteen degrees below zero.^e The heat of summer is seldom oppressive, but in that season the northern districts are warmer than the southern. The forests on the mountains collect the clouds, and the weather is often tempestuous between the middle of June and the 15th of August, but the great rains during these months fertilize the ground; the spring begins in the high country about the end of April and continues till the middle of June; the heat of summer then commences and lasts to the middle of August; snow falls generally before the end of September, and is not entirely dissolved until the middle of May. Bosnia is on the whole a very healthy country; it is well supplied with water, the air is salubrious, and the marshes are almost exclusively confined to the banks of the Save.

Many streams rise from the mountains; the stranger cannot travel half a league in any direction without crossing a rivulet; they are seen on the hills at every hundred yards. This extreme profusion of nature is attended with

inconvenience; the roads are in many places rendered impassable in the middle of summer; the Turks, it is true, never attempt to change the direction of the currents. The Drina, which forms the eastern boundary of the province, the Bosna, which waters the central districts and gives its name to the country, and the Verbaz on the west, are navigable for boats of fifty tons burden; the Unna, which is to a considerable distance the boundary between Austrian and Turco-Bosnian Croatia, cannot be navigated on account of its numerous shallows; all these rivers discharge themselves into the Save.

Travellers have enumerated, in addition to the principal towns in Bosnia, twenty-four fortresses and nineteen forts or castles, which were built in the middle ages.^f *Serajevo* or *Bosna-Seraï* is the capital of the country; its inhabitants are almost independent, at all events the *Beylerbey* or vizier of the province is only allowed to reside amongst them three days in the year; the houses are adorned with gardens, on all sides are minarets, bastions and turrets; the whole is surrounded by well-wooded hills watered by the *Mihaska* and other feeders of the Bosna; the population is not less than 60,000 souls, and a third part of the inhabitants follow the rites of the Greek church. The forts in the high town or *Grad* are each flanked by four small turrets, and the walls, it is said, are twelve feet thick. It may be concluded, from the extensive trade in arms and jewellery, and from the numerous caravans which pass to Constantinople, that the inhabitants are as industrious as any in the Turkish dominions. Trawnick lies to the west of the capital on the Laschwa, a feeder of the Bosna; its citadel, which according to M. Desfossés is of little importance, and according to M. Pertuisier, almost impregnable, is the residence of the vizier-pacha or governor of the province, on whom the Porte confers the vain title of vizier of Hungary; his revenue, owing to his exorbitant exactions, amounts sometimes to £100,000;^g all the offices enjoyed by the ancient courtiers exist still in the court of the vizier,^h and under himⁱ are two pachas *in partibus infidelium*, the one of Knin, the other of Clissa in Dalmatia; but this guardian of the west of the empire is changed every three years, and is often, before that period expires, deprived of his dignities at the request of the Bosnians. The towns of *Vrandouk* and *Maglay* on the Bosna are remarkable for their strong citadels. *Jaicza*,^k once a famous city in the basin of the Verbaz, and the ancient abode of the Catholic kings of Bosnia, has fallen into decay. Baniak, a large and commercial town, is situated below it at the confluence of the Bania; the houses, including those in the citadel, are not fewer than 4200; the garrison is composed of 6000 men, and the place is defended by three strong redoubts; the number of Christian families is about 1800.

Bihacz. Novi, and *Dubieza*, three small fortresses on the Unna, resisted in 1789 the united efforts of an Austrian army; and Berbir or the Turkish Gradisca on the Save, one of the strongest places in the country, was fortified in 1774 by French engineers. The population of Zvornick, a town in the basin of the Drina, amounted at one time to 14,000 souls, but at present it is not more than 6000; the

^a "The remainder, gipsies (*Bohemians*)."

^b "The great saline."

^c "Little Touzla."

^d "2 hours."

^e Desfossés, p. 15. Pouqueville, II. 465, 472.

^f Stæver, Archives d'Ethnographie, t. I. p. 120.

^g "More than 2 millions francs."

^h "His court retains all the dignitaries of the former royal court of Bosnia."

ⁱ "Près de lui," residing with him, without any local jurisdiction.—P.

^k The oval city—literally, the city of the egg.

place consists of a low town, formerly a suburb, and a high town or *grad*; although the walls and old towers are all that remain of the latter, the Servians were unable to take it. Vischegrad lies above it, on the same river; there too the Servian invaders have been more than once repulsed.

Bosnia is admirably defended by nature; it could only be conquered in the way attempted by Prince Eugene in 1697, or in other words, by bringing a powerful army from the Save on Bosna-Serai, but it might be necessary at the same time to occupy Herzegovina, a district of which the positions are imperfectly known. It appears from the memoir of an Austrian officer,^a that the roads in the country are bad; cannon or artillery could only be transported on few of them; and the Turks, in the event of an invasion, might convey the greater part of the provisions in Bosnia into their strong holds; the vizier could easily raise 80,000 troops; thirty thousand of them might be sufficient for the defence of the forts, and the remaining fifty thousand might be employed in the field. The Bosnian army was composed^b of *Janizaries*, *Seimens*, *Serdentjeztis*, *Spahis*, and *Nephers*. The names of the Janizaries inscribed in the different lists amounted to 78,000; all of them were armed burgesses, and not more than sixteen thousand received pay. The Seimens are light armed infantry, equipped and maintained at the expense of government. The Serdentjeztis are troops hastily levied and ill disciplined; they maintain themselves by plundering the countries in which they make war. The Spahis in Bosnia and in the other Turkish dominions are horsemen, each of whom possesses a fief. The Nephers are light cavalry, chiefly employed in devastating the districts through which they pass. The great difficulty in the conquest of Bosnia must be attributed to its numerous passes and thick woods, its castles, *kullas* or forts,^c and also to the known courage of the Bosnians when they combat in their own land, and to the necessity of protecting an immense frontier against the incursions and attacks of light-armed troops.

The crescent need not fear a Bosnian invasion,^d but it is menaced by dangers of a different kind; the majority of the people are devoted to the Mussulman worship, but they differ wholly from the Turks in their manners, habits and interests. Bosnia is a feudal nation, which from contingent events has become tributary to the Ottoman empire. The thirty-six hereditary captains and the *ayans* or deputies of the people in the towns exercise a power founded on custom and opinion, but which is amply sufficient to balance the power of the vizier, pachas and *ridjals* or governors appointed by the Porte; the whole province is more independent of Turkey than Hungary is of Austria. If the people complain against their rulers, the pachas are deprived of their dignities; and the application of the revenue to the military defence of the country is one advantage which the Bosnians derive from their fidelity during the insurrection in Servia. The Bosnian language, a dialect of the Servian, is generally spoken; the Turks seldom think of acquiring it, and are considered strangers. Polygamy is almost unknown in Bosnia; both sexes enjoy the privilege of choosing their companions for life; an unmarried woman appears without a veil, respect is shown

to the mother of a family, and all these customs distinguish the people from the inhabitants of eastern countries. The Bosnians are considered *half infidels* by the Mussulmans of Constantinople; they are descended from the warriors of a northern race, and are not as yet sullied by effeminate vices, by venality or corruption; their barbarism must be imputed to an intellectual separation from the rest of Europe; if they were enlightened, if the Christian religion were preached in its gospel purity amongst them, they might soon become an independent nation.

It is unfair to blame the inhabitants of the province for their attachment to Mahometanism; their Christian neighbours are the members of a corrupt church; those of the Greek persuasion on the Drina and the Save, those of the Catholic on the Verbaz from Jaicza to Banialuka, and on the frontier of Herzegovina, are infected with the superstition, ignorance and prevailing errors of the middle ages; they are the slaves of a degenerate priesthood, and excite the contempt of the Mahometan Bosnians, part of whose ancestors adopted the declared heresy of the *Paternians*. The position of the Greek and Catholic villages marks the unfortunate division of the ancient kingdom between the eastern and western churches; the one was supported by the Croatian spear, the other by the Servian sword. It may be doubted if the Turks with all their barbarity could unite them; the priests thunder in the present day their anathemas against each other.

The part of Bosnia which has been mentioned is well known; the other districts beyond the Drina are seldom visited, but some valuable information has been lately obtained from the itineraries of French travellers. Podrimna and the government of Obrach are situated in that quarter of the province;^e these districts are either incorrectly marked or omitted in the maps published at a later period than those of Coronelli. The Drina, the White Drino and the Zem rise probably at no great distance from one another in the Chemerno mountains, which must not be confounded with the range of the same name in Servia. The town of Fotschia, with a population of 10,000 souls, is situated in the same part of the country: Hadgi-Khalsab considers it an appendage of Herzegovina; Busching annexes it to the Sangiacat of Obrach; some of the different writers who mention it, place it on the White Drino, others on the Moraca, and others on the Zem; lastly, in the same district is situated the church attached to the convent of Miloseva, and in it are deposited the ashes of Saint Saba, the first bishop of Servia, whence the name of the Dutchy of St. Saba which is applied to the whole of Herzegovina.

We follow in countries imperfectly known, the itinerary of M. H. Pouqueville from Bosnia to Macedonia, and arrive at Novi-Bazar, or according to its Turkish name, Jeni-Bazar, a populous town, of which the Sangiac is governor of Rascia, a dependence of Bosnia, but very different from that province in its climate and productions; although its elevation above the level of the sea is considerable, it yields strong wine; the ox is not seen, but the buffalo is common. It is not as yet determined whether these changes are occasioned by a more southern latitude, or by an extensive opening in the mountainous chains. The in-

^a Posselt, Annales politiques.

^b Previous to the late destruction of the corps of Janizaries by Mahmoud.—P.

^c "Kullas or fortified towers, and old castles."

VOL. II.—NOS. 93 & 94.

^d Not an invasion by the Bosnians, but of Bosnia.—P.

^e "The province of Podrimna and the sandjiakat of Obrach, are situated in that part of Bosnia."

habitants are of Servian origin; the greater number are members of the Greek church. The neighbourhood of Novi-Bazar is visited on account of its thermal springs, which are of the same kind as those scattered throughout the range of Hæmus and Scardus.

It is probable from the accounts which different authors have given of Servia, that it resembles Bosnia; but the mountains on the south are bounded by more open and more temperate plains. The mountains in the middle of the province, *Czemerno*, *Scheliana*, and *Kopavneg*, form apparently a very elevated group. To the north of this group, which forms a limit to the elevated plains of Upper Servia, two large valleys meet near Kruschevacz, the one extending in an easterly direction towards Nissa, the other westwards to Ussitza; the first is watered by the eastern Morava, which flows from the base of Mount Scomius, and winds through a country little known on the high table-land in the south. The western Morava passes through the other valley, but that river is not so great as the eastern, and it receives its principal streams from the Ibar, which descends from the same table-land or rather from the plain of Cossova. The two Moravas after their union turn to the north and traverse the chain of Kaplan, at the base of which is situated Lower Servia, the ancient bannat of Mazovia. A chain of mountains which stretches across all the country to the northwest of the Timok, derives its name from the Hayduks or banditti, who perhaps still inhabit its arid summits and numerous caverns; the same mountains confine the channel of the Danube.

The silver mines near Nova-Berda, and the iron mines near Saphina, are better known; but gold mines were worked in that part of the country by the Romans, and travellers assure us that it abounds in salt. The vast forests are chiefly composed of pines and oaks; the wild beasts that frequent them are the bear, the lynx, and the wolf; the natives hunt the chamois or the *gaïza* on the high mountains. The vineyards are derived from those which were first planted by the Emperor Probus; the wine produced from them is superior in strength and flavour to any in Walachia.^a The inhabitants are wretched agriculturists, but wheat, maize and millet amply repay the labours of the husbandman. Tobacco, flax and hemp are exported every year; the fruits of the south are rarely seen, but whole districts are covered with apple, pear and cherry trees. The Servians are a strong and active race of men; in their national songs are recorded their victories over the Mussulmans, the miracles of St. Saba and St. Andrew, the adventures of Prince Mark, and many Bosnian, Dalmatian and Albanian traditions;^b their dialect is perhaps the purest and most harmonious of any connected with the Slavonic. The people are of the Greek church; they acknowledge, as their spiritual head, a dignitary, who is said to reside at Pech or Pekia in an unknown district of Upper Albania;^c but we are informed by the best authorities, that the individual is the archbishop of Semendria and primate of Servia. More civilized and indus-

trious than the Bosnians, the Servians^d are not less renowned for their courage; they have recently obtained under the command of Czerni-George, important privileges which are now confirmed in a treaty guaranteed by Russia. The Turks, who are not connected with government, are rarely permitted to settle in the country; the fortresses only are defended by Ottoman garrisons; in short, the Servians, though tributary to the Mussulmans, are governed by their own laws; they as well as the Bosnians and Albanians might easily free themselves from the yoke of a feeble empire. The Servians may be considered a simple not a barbarous people; the most of them can write,^e their language is nearly the same as the Russian, and many young men are sent to study in the Russian universities. The Servian senate regulates the administration of justice, presides over the police, and extends its jurisdiction to the ecclesiastical affairs of the country. The nation pays a fixed tribute, and furnishes in the event of war, a force of 12,000 men to the Porte.

Belgrade^f is famous in the annals of war; taken and retaken by the Austrians and the Turks, the Crescent still floats on its ramparts, but it ought to have remained in the possession of the brave Servians, who took it during their late insurrection. The fortress commands from the summit of a rock, the *water town* which is encompassed with walls and extends along the Danube, the *town of the Raitzes*^g or Servians on the Save, and a great part of the suburbs; the whole is peopled by 30,000 inhabitants, and amongst them are many Armenians and Jews, who are attracted to the place by the expectation of gain; it is the principal mart between Germany and Hungary on one side, and Constantinople and Salonica on the other. Semendria, or as it is vulgarly called by the natives, Smedreno, but more correctly Sent-Andriya or *St. Andrew*, is the capital of Servia; its population does not exceed 10 or 12,000 souls. Sabacz and Hassan-Palanka are two Turkish fortresses less important than that of Orsova, which is situated on an island in the Danube near the northeast extremity of the province. The same river, a short way above the important fortress of Orsova, flows between steep rocks, and its waters rush in foaming eddies through the pass of Demir-Kapi; at no great distance below it the remains of columns and arches, which are still seen on the banks of the Danube, mark the site of Trajan's famous bridge,^h Hadrian, envious of his great predecessor, is accused by historians of having destroyed the work, but it is doubtful if it was ever finished in the way it is represented on Trajan's pillar. A traveller has discovered many remarkable ruins on Mount Haloga or Havalla, about two German or nearly seven English miles^k to the south of Belgrade: the ruins, it is supposed, are the remains of a Gothic town; the name of the place renders that opinion probable, but it requires to be confirmed by additional evidence.

The towns towards the interior are *Krushevacz* or the Turkish *Aladja-Hissar*; it is the most central city in the province and its castle, was formerly the residence of the

^a Kamensky, *Putestchestwie w' Moldawii i Serbii*. Moskwa, 1810. *Eutrop. Brev.* IX. 17.*

* "Opere militari Almam montem apud Sirmium et Aureum apud Mæciam superiorem, vincis consuevit, et provincialibus colendas dedit."

^b *Nar. dnc Srpske Piesme*, collected by W. Stephanowitch Karadgitch. Lipitski, 1824. 3 vol.

^c Duprè, *Annal. des Voyages*, XV. 93.

^d "Les Serbes," *Srpske*, M.B., *Srbska*, Adelung.

^e "They write in their language," or, in other words, they cultivate a national literature. Their language is the most cultivated, the most inte-

resting, and the most widely spread, of all the southern Slavonian dialects. It abounds in poetry, particularly in national songs. Collections of Servian poetry and tales have been recently published in Germany, particularly by Vuk at Vienna. A volume of Servian popular poetry was translated and published by Mr. Bowring, 1827.—P.

^f Bivogrod, in Servian; Nandos-eyer-var, in Hungarian. ^g Rascians.

^h Mannert, *Expédition de Trajan*, *Annal. des Voyages*, XXI.

ⁱ "Below it, near Kladova, the remains of pillars standing erect in the river, mark the site of Trajan's famous bridge."

^k See note ^e p. 444.

Servian kings. *Ussitza* lies to the west of the last town ; it is a place of some trade, and contains about 6000 inhabitants ; the vast orchards in the vicinity are productive,^a and the Turkish geographer considers the position of the town not unlike that of Mecca.^b To the east is situated the fortress of *Nissa*, the birth place of Constantine the Great ; it was embellished and adorned by that emperor, but no trace of its magnificence is left ; its low houses or cottages are built of clay and covered with shingles. The towns on the higher banks of the eastern Morava, and its feeders, are little known ; the trade of *Orleup* or the ancient *Precopia* is not wholly destroyed, but the site of *Kratovo*, the ancient burying place of the Servian kings, cannot be determined ; its name ought probably to be written *Kralowa*, or the royal city. *Nova-Berda* is built near valuable mines, but the neighbouring country is the retreat of banditti.^c M. H. Pouqueville, on his route from Novi-Bazar, passed through the southern extremities of the province ; he found the country in a state of complete anarchy, the roads were infested with robbers, fires blazed from the forests. The same traveller was not permitted to remain long at *Pristina* or *Giustendel*, the supposed birth-place of Justinian. He visited, not without danger, the famous plain known by the different names of Merles, Cossovo-Poli, and Rigomezo,^d where in the year 1389, the sultan Amurath I. was slain by a Bosnian noble after an obstinate battle against the united armies of Servia, Bosnia, and Bulgaria. A mausoleum was erected by the victorious soldiers in memory of their sovereign ; lamps are continually burned in it ; they are guarded by a number of dervises. The Bosnian was put to death ; a stone has been placed over his grave, which is still revered by his countrymen. Half a century afterwards, in 1448, Amurath II. routed in the same place a Hungarian army. The fate of empires may be again decided on these memorable plains.

It has often been a matter of wonder how the Slavonians, worn out by so many destructive wars, could have peopled all Illyria with their numerous hordes ; the Servians and Bosnians, it is thought, found and mingled with an ancient nation of the same origin as themselves on their arrival in the country during the sixth century. Dolce maintains boldly that Illyria was the native country of the people whose colonies now occupy the whole of Poland and Russia ; his arguments were too hastily rejected by the celebrated Adelung.^e It has been already shown that the Albanians are the descendants of the Illyrians ; other nations existed perhaps in the earliest historical age near the Thracians and Illyrians, whose names indicate some sort of connexion between them and the Slavonic tribes ; they may therefore be denominated the Proto-Slavonians.

The Heneti are supposed to be homonymous with the

^a " — produce the best cherries."

^b Hadgi-Khalfa, p. 155.

^c It is simply stated in the original, that the neighbouring country is not visited by travellers.—P.

^d "He could not ascertain whether Pristina, which some have called Giustendel, has really any claim to be considered the birth place of Justinian, nor could he visit in security the famous plain of Merles, called Cossovo-Polie in Slavonian, and in Hungarian, Rigomezo."

^e Mithridates, t. II. p. 633.

^f From *trava*, herbage, turf ; hence *Travnik* in Bosnia, and *Trave* in Wagria.

^g From *Cichouchny*, the tranquil or peaceful, in opposition to the Bessi.

^h From *Krowiczy*, cowherds.

ⁱ *Bies*, a devil or wicked man ; *Biezen*, to run. The Biessi in Sarmatia, in the Bieczial mountains.

^k *Dolina*, a valley.

^l *Wys* and *woz*, a hill or high land. The Greeks pronounced the *b*

Veneti ; they have been mentioned since the dawn of history, but the information we have concerning them is imperfect and doubtful. No conclusion can be formed from the names of Slavonic origin in Paphlagonia ; the age in which they were introduced is unknown : but the history of the Thracians may guide us in the inquiry ; their country was undoubtedly the abode of a numerous race, that spoke a different language from the Phrygians, Hellenes and Illyrians, but they were connected with all these nations. It has been supposed that the Thracians were Medes, because their country was known by the Zend or Median name *Aria* ; that they were Celts, because *bria* meant in their language a town, and sometimes a bridge ; and that they were Germans, because *perga* signified a mountainous tract or high country. These hypotheses are inconsistent and contradictory ; resemblances may be traced not only between the Thracians, but every ancient people, and different nations ; it appears however from various indications that the Slavonians were related to many tribes in Thrace, to the Trausi on the Travus,^f their neighbours the Cicones,^g the Krobizi on Mount Hæmus,^h the Bessi on Mount Orbelus and at a later period in Bessarabia,ⁱ the Dolonci in the vallies of Rhodope,^k and all those whose names begin with *byz* or *bis*.^l It may be added that the Strymon has always retained a Slavonic name,^m and many Slavonic terms might be discovered in the maps of ancient and classical Greece.ⁿ The lake of Cirknitz was called *Lugeus* at the time it is first mentioned in history ; now that word is the same as the *Lug* or *Luka* in the Slavonic dialects ; the country near its banks was peopled by the Carni, whose Slavo-Roman name has existed for ages ;^o the same remark may be applied to the Save, the Drave, the Kulpa and the Piave, to Mounts *Ocra* and *Karouankes*, and to several towns.^p The Pannonii were, as their name indicates,^q the lords or powerful men of Croatia and Slavonia ; they drank a kind of strong beer which bore a Slavonic name.^r The Mazovias on the Vistula and the Danube have been called from the Mazœi or one of their tribes.^s It is probable from so many Slavonic terms in the countries to the north of the gulf of Venice, that the Veneti were originally a Slavonian tribe ; if that opinion be adopted, it may enable us to account for their commercial relations with the Venedi and *Æsty*,^t or *sellers of amber*. It is difficult to suppose how they could have so easily crossed the continent, had they not found a number of tribes of the same origin, and who spoke the same language as themselves.

We do not mean to affirm that the Proto-Slavonians scattered in Thrace, Illyria, and Pannonia, were not distinguished by their manners, customs, and language, from the Venedi, Lygii, Vindili, Karpi, and other northern Slavonic nations. They might have differed from them as

like *æ*. (The German *æ*, the English *v*—this is the practice with the modern Greeks, who write the English *b* by *mp*.—P.) The town of Wizia, to the north of Constantinople, is the ancient Bizia (Bizva—*D'Anville*.)

^m In Polish, Strzumien or Strumien ; in Bulgarian, Struma.

ⁿ Volustana in Thessaly ; the lake Nizeros in Acarnania, &c.

^o The name of the country is now *Carniola*, Germ. *Krain*, Slavonic *Kraina*, signifying the country.

^p Tergeste (Trieste,) and Tarvisium (Treviso,) from *targ*, *terg*, *targowisko*, *tarvis*, market, fair, town.

^q *Pan*, a lord ; *panowy*, that which belongs to a lord.

^r Subayam from Zapiiam. See Hieron. Comment. in Isai. c. xix. Amm. Marcell. xxvi. 8.

^s "The name of the Mazœi, one of their tribes, resembles that of Mazovia on the Vistula and the Danube."

^t *Æstiai*.—*D'Anville*.

much as the Pelasghi differed from the Hellenes, the Etruscans from the Latins, and the Romans in the time of Romulus from those in the age of Augustus; they might have lived obscurely among the more powerful Thracian nations, or mixed with the Illyrian Romans, or been oppressed by the Celtic hordes; but the existence of the Proto-Slavonians both in the countries watered by the Save and the Drave, and in those near the Strymon and the Hebrus, is a fact of which history affords abundant evidence.

The *Hyperboreans* who remained faithful to the Pelasgic and Hellenic worship formed probably part of those tribes; from their country several Greek divinities, among others *Opora*, found their way into the Olympus of the Wends; they adored Iacchus or Bacchus under the title of *Iako-Bog*;^a their God of the dead was known to the ancient Italians by the name of *Vragus*.^b The resemblance in the languages, customs and mythology of the Italian and Hellenic nations on the one side, and the Slavonic and Illyrian on the other, might, if carefully examined, throw additional light on the primitive history of Europe; but little valuable information could be gained on that important branch of comparative geography, without much labour, patience, and research.

The Roman emperors invited the *Slavini* or *Slavi* to repeople Illyria during the incursions of the conquering Goths and devastating Huns; the Byzantine historians recorded their names and exploits. The *Serbi* or *Serbli* migrated from Great or White Serbia, one or other, but which of the two it is difficult to determine;^c the country is supposed to have been situated in the present Galicia. The people were divided into the Red and White *Serbi*; they remained for some time in Macedonia, where the town of Servitza is still a monument of their invasion, and settled afterwards on the banks of the Morava and the Drina. Some of them, however, did not remove from Macedonia, and their flourishing, rich, and warlike state, braved all the power of Byzantium. One of their colonies advanced into the Peloponnesus, and was in time confounded with the ancient inhabitants. The Red Servians not only occupied the whole of Serbia, of which a part was called Rascia, but founded in Dalmatia, the lordship or *zupania* of Zacholmia,^d and the petty states of Terbun

or Trebigni, Narenta, and Dioclea; the latter the birth place of the emperor Diocletian, who adorned it with temples and palaces, which have been since overwhelmed in the marshy waters of the lake *Lignester*. The White Servians occupied the whole of Bosnia to the banks of the Verbaz. The Servians were almost always divided into small principalities and republics, and were subdued at different periods by the Bulgarian and Hungarian kings. Bosnia from being a Servian Zupania became a Hungarian province: and the Bannat of Mazovia was formed in the north of Serbia by the monarchs of Hungary. While the Servians were scattered in the interior of Illyria, a number of Polish-Slavonians migrated from the Great *Chrobatia* in the Carpathian mountains, and placed themselves at the head of the ancient population of Pannonia; strengthened by the assistance of the inhabitants, they conquered the western part of Dalmatia and the countries to the west of the Verbaz. The Croats or *Horwaths*^e were of a different origin, and spoke a different language; they embraced the Latin, while the Servians adhered to the Greek church. The Croats, from their connexion with the west, retained all the chivalry and barbarism in the feudal laws and customs; the Servians on the Haliacmon and the Danube were like the Russians, brave and industrious; both were addicted to similar superstitions, which they did not wholly lay aside after their admission of Christianity; like brothers born in different climates, they met in the ancient and long forgotten countries of their forefathers.

Thus two distinct invasions, the one of the western, the other of the eastern Slavonians, were made in the countries previously occupied by the Proto-Slavonic tribes. The descendants of these invaders, are the Slavo-Illyrians or the Slavonic nations on the south of the Danube; their population in the Austrian, Hungarian and Ottoman territories, amounts to nearly 4,000,000 of strong, active and brave men, naturally intelligent, and well fitted to make progress in the arts of peace and war. Is the example of Stephen Duscian likely to be followed, who, with such men, proclaimed himself emperor of the Romans and Servians, and marched against Constantinople at the head of 80,000 warriors?

^a See Dolci, de Linguae Illyricæ vetustate et amplitudine, p. 19.

^b Festus, p. 143. "Orcum quem dicimus, ait Verrius, ab antiquis dictum Vragum." *Vrag*, a demon, in Slavo-Illyrian; *wrog*, idem, in Polish; *traam*, to kill, in Albanian.

^c *Beli*, pronounced *veli* by the Byzantines, may signify *bieli*, white, or *weli*, great.

^d "The *ultramontane*."

^e Chorwats, Chrobats, (Adelung.)

BOOK C.

EUROPE.

European Turkey. Northeastern Provinces. Walachians. Zigeunes or Gypsies.

THE savage nations on the banks of the Ohio chose a vast plain for their field of battle ; its trees were levelled with the ground ; he who tilled it was punished with death ; it was stained with the blood of contending tribes : but in the revolution of ages its destiny has been changed ; the savages were conquered by a new race, and a thousand flourishing villages are now scattered throughout the fertile Kentucky and the field of combat. The countries on the banks of the majestic Danube near its entrance into the Black Sea, might for many ages have been compared to Kentucky ; the flowery plains and woody hills of Moldavia, Walachia and Bulgaria have for time immemorial been the high road and field of battle, for all the barbarians who migrated from Asia into Europe. There the light Sarmatian horsemen fought against the heavy Roman legions, and the Hun, more brutal than the Sarmatian, pursued the scattered Goths. Many other nations^a established there an ephemeral empire ; the Bulgarians only retained their possessions, but at the price of their liberty : there the Osmanli Turks displayed their victorious banners, and the white Polish eagle fled before them ; but for the last half century, the victors have been threatened by Russia.

The Walachians, the Moldavians and the Bulgarians, the subjects or rather the slaves of so many masters, still inhabit these countries, and drag out a precarious and wretched existence.

The Bulgarians^b were an ancient Turkish or Tartar nation, which in the fourth century was settled on the Wolga ; the ruins of their former capital may still be seen in the neighbourhood of Kasan. They removed afterwards to the countries between the Don and the Bog, and called their new territories the Second Bulgaria. They passed the Danube in 539, made themselves masters of the coast of the Black Sea as far as Mount Hæmus, and in 678 subdued seven Slavonic tribes, and formed the kingdom of Black Bulgaria, the capital of which was Presthlaba or Perejaslav. The Slavonians that submitted to them were those of *Severia* on the Sem and the Desna. More numerous than their masters, their language in time prevailed ; it was, as the name of the capital indicates,^c connected with the dialects spoken by the *Antes* or Russians. The Bulgarians penetrated into Thrace, Macedonia, and Thessaly ; one of their

hordes settled in the duchy of Benevento, and a fugitive band of the same people were destroyed in Carinthia by the Bavarians. Their wars with the Greek empire were very sanguinary ; whole provinces were changed into deserts, or, as they were then called, *Bulgarian forests* :^d it is true their example was imitated by the Greeks, who in one day put out the eyes of fifteen thousand Bulgarian prisoners. The kingdom or empire of the Bulgarians, which extended its sway in 1010, over Macedonia, Albania and Servia, was destroyed by the emperor Basil II., and the remains of the numerous tribes which composed it, are still disseminated throughout Turkey. In 1185, the Walachians or rather the Kutzo-Walachians on the south of the Danube, and the Bulgarians who remained in Black Bulgaria, planned a revolt, and founded the Walachian and Bulgarian kingdom,^e which became sometimes the ally and at other times the vassal of the Byzantine empire ; it was finally conquered by the Ottomans in the latter part of the fourteenth century.^f

The Bulgarians, accustomed to the labours and occupations of a country life, are now an industrious, quiet, and hospitable people ; the greater number are members of the Greek church, and under the superintendence of a particular patriarch. Their Slavonic dialect differs little from the Servian, but several Tartar words have been introduced by such of them as have embraced Mahometanism.^g Bulgaria is a country highly favoured by nature ; owing to its northern declivity, the cold is sometimes as severe as in Servia, but the common temperature is sufficiently mild to ensure the cultivation of the vine, corn, silk, tobacco, and various fruits. The banks of the Danube on the Bulgarian side are not so marshy as in Walachia, and the fertile pastures on the sides of the mountains are covered with herds of oxen and flocks of sheep. Many horses are bred in the same districts ; the Tartar hordes, who are scattered through Bulgaria, eat the flesh of these animals. The appearance of the extensive forests is varied by different trees, the beech, the pine, and the oak. A number of thermal springs flow from the heights ; those on mount Suha are sulphureous and of a red colour. A warm fountain on the frontier of Servia, near the sources of the Nissava, rises in the form of a pillar about the thickness of a man's arm ; a cold and crystalline spring issues from the foot of the same hill ; the water in both is medicinal.^h

^a "Les Abares, les Coumans, les Patzinakites"—the Avars, the Kumans and the Petchenegurs, (the two last of Tartar origin.)—P.

^b "Voulgares."

^c The Bulgarian town was probably called from Perejaslav in the government of Pultawa.

^d It is probable this nation has given origin to one of the most opprobrious terms in the French language.—P.

^e "Royaume Valaquo-bulgare."

^f Thunmann, *Peuples Orientaux de l'Europe*, I. p. 37, &c.

^g See the travels of Boscovich and Reimers.

^h A fine description in Homer, may be applied to these streams :

Next by Scamander's double source they bound,
Where two famed fountains burst the parted ground ;
This hot through scorching clefts is seen to rise,
With exhalations steaming to the skies ;

Sophia, or according to its Bulgarian name, Triaditza, is the chief town in the country; situated on the road between Belgrade and Constantinople, and communicating with Seres and Salonica, its trade is extensive. The river Isker winds in the valley, and one of its branches waters the numerous gardens and orchards in the town; its population has been vaguely estimated at 50,000 souls; the *Beylerbey* of Romelia generally resides at Sophia. Tirnovo,^a formerly the residence of the last Bulgarian kings, and at present of a metropolitan who is entitled the primate and patriarch of Bulgaria, is built on a hill and surrounded with gardens, on the banks of the Iantra. *Svet.ihora* or the holy mountain rises on the south-east of the town; its forests are held sacred, and according to ancient traditions it is dangerous to cut them down; the fountains are cooled by their shade, and the flocks sheltered from the sun's heat.^b Schumna,^c a Turkish military town, is situated in the mountainous districts; it was there that the Ottoman armies against the Austrians used to meet; a magnificent tomb is erected in the same place in honour of Hassan Pacha, whose bravery saved the tottering empire in the wars against Catherine the Second.^d The towns on the banks of the Danube in the direction from west to east are Widin, one of the most important fortresses in Turkey, Nicopoli, an open town with a strong castle, Ruseck, or Ruscuk,^e which is well fortified and peopled by 30,000 inhabitants, many of whom are employed in manufacturing wool and muslin, and in dressing morocco leather, and Silistria, also a fortified town with some manufactures.

The country which extends eastward from Schumna and Silistria, between the Danube and the Black Sea, is called *Dobrukscha*; it is covered with many hills, and intersected by the lake Ramsin and some others: it is ill wooded, but abounds in excellent pastures, and the small horses that feed on them are highly prized in Turkey; their pace is steady and uniform, and it is said that they seldom stumble. Babadaghi, the station at which the Ottoman armies formerly met in their wars against the Russians, Varna, a port on the Black Sea, and Isakdchi on the Danube, are the places most worthy of notice in the country. Amurath the Great, proved at the battle of Varna, 1444, the superiority of the Ottoman arms, and completed the conquest of European Turkey. M. Hammer has tried in vain to discover Tomisvar, which is supposed to be near the site of the ancient Tomi,^f a place rendered illustrious by the exile of Ovid. The Tartars in *Dobrukscha* are divided into two hordes, (the *Orak* and *Orumbet*;) they practise religiously the duties of hospitality prescribed in the Koran. If a stranger enters any of their villages, it is not uncommon for the most respectable inhabitants to dispute about the honour of receiving him, and it is customary to entertain him gratuitously during three days. The people have plenty of poultry, milk, and honey.

Walachia is situated on the other side of the Danube; it may be shown from the language of the Getæ and Daci, the most ancient people in these countries, that they were in all probability connected with the Slavonic tribes or the Carpi,

Lygii and Venedi, who inhabited from time immemorial the Carpathian mountains and the plains on the Vistula; almost all the names in the ancient geography of Dacia end in *ava*, a Polish termination; many of them may be explained by different words in the Slavonic dialects; and as the Walachian language is chiefly composed of Slavonic and Latin, it may be inferred from these two facts that the modern Walachians are the descendants of the ancient Getæ or Daci, mingled with the numerous Roman colonies sent by the Emperor Trajan to the new province. The other tribes that have settled in Walachia and Moldavia have left but few traces of their language and customs. Such is the general conclusion at which historians have arrived; but we might enter into farther researches relative to the identity or difference between the Getæ and the Daci, their total or partial migration, the period of different geographical nomenclatures, the peculiarities of the Walachian dialects, and the local position of the different branches of the Walachian nation. The same people exist not only in Transylvania and the northwest of Hungary, but in Pindus and Scardus, perhaps in Dalmatia, and also Rhodope and Hæmus. It has been asked, since the people occupy so many countries, if the formation of the Daco-Latin can be attributed only to the Roman military colonies. What reason can be assigned why the primitive languages of the Triballi, the Dardani and the Thracians had not, like the Albanian, some resemblance to the ancient Italic dialects, and particularly the *Romana rustica*, the source of so many modern tongues? It is difficult to imagine any other by which a Roman dialect could extend itself throughout Mæsia and Dacia, or prevail among all the pastoral tribes in the central mountains of Turkey. The analogy between the Walachian and Albanian may be also accounted for by this hypothesis; but it might be necessary to compare all the Walachian dialects with all the varieties of the Albanian, in order to determine fully in what the analogy consists. Other difficulties might arise from the distinction which Strabo established between the Getæ and the Daci, and from the total migration of the last people who retreated beyond the Carpathian mountains after their war against Trajan; also from the ancient Daco-Getic names of plants, as well as the Getic names of men and divinities, because such names cannot be traced in the modern language; but these difficulties may perhaps be removed by the supposition that the Getæ were only a ruling tribe, not long dominant in that part of Europe, and that their power was transmitted to the *Daki*, or rather the *Davi*, who did not themselves make up all the population of the country. Ancient history affords us many examples of the preponderance of one tribe over a number of others, some times very different; little attention has been paid to such examples, and incorrect inferences have often been deduced from them. Who were the Getæ? it is said. Herodotus tells us they were Thracians; such at least was the information he obtained by travelling amongst them, and by examining their country. But the Thracians, it is urged, inhabited part of Asia. Although the Semitic^g languages might furnish us with an explanation of the names of the

That the green banks in summer's heat o'erflows,
Like crystal clear, and cold as winter snows:
Each gushing fount a marble cistern fills,
Whose polish'd bed receives the falling rills;
Where Trojan dames (ere yet alarmed by Greece)
Washed their fair garments in the days of peace.

Iliad, book 22d.

* Ternova.

^b Hadgi-Khalfa, p. 42.

^c Schumla, Germ. Schumla, Fr. Choumla.

^d Hammer's Notes on the work of Hadgi-Khalfa, p. 37.

^e Rudschuk, Rutschuk.—"Ruscuk is the Latino-Slavonian orthography."—P.

^f "M. Hammer sought in vain for a town called Tomisvar, which is represented on the old maps as occupying the site of Tomi."

^g "Aramæennes."

divinity *Gebeleis*, (the power that presides over high places,) and of the *Geæ*, (the keepers of herds and flocks;) although the five prayers and the seven choristers in the Dacian worship might have been borrowed from similar customs among the star worshippers in the east; although the sanctuary of *Dakia* in Cappadocia might have been a temple dedicated to Dagon or Jupiter;^a still every hypothesis formed from such data would be as improbable as the one, according to which the *Dai*, a tribe of Persians or Scythians, came from the Caspian Sea to found a *Daghistan* in Europe,^b or the other in which the original country of the *Geta* is placed in the centre of China.^c It may be proved that the modern Walachian is formed like the French, Italian, and Spanish, and is comparable in point of harmony and richness to any that are derived from the Latin.^d The Walachians call themselves *Roumouni*^e or Romans; their right to do so may have been founded on the edict of Caracalla,^f by which all the inhabitants in the empire could claim the title of Roman citizens; but *Vlach*, or as it is pronounced *Velach*, is the name given them by the Turks, Bulgarians, and Albanians. Authors have wasted much time in attempting to derive that word from Asiatic languages; the Polish word *Vloch* signifies an Italian or a Roman, and is pronounced as if it were written *Volaugh*. In the Lithuanian, an ancient Wendo-Slavonic dialect, the corresponding word is *Walakas*, and Italy is called *Walu-ku-ziamé*. If it be remembered that *Val* in Albanian means a low country, and that the Italians are denominated *Walsches*^g by the Germans, it must be admitted that Walachian is synonymous with *Roumouni* or Roman.

The Walachians are dispersed in Bulgaria, Greece, Hungary and Transylvania, and may amount to two or three millions; they were the subjects of the Bulgarian and Hungarian monarchies, and formed an independent state in 1290, not long after the death of Ladislaus. Their first king was Rodolphus the Black; one of their colonies settled in Moldavia under the government of Prince Dragosch in 1350; but although protected by Hungary and Poland, these states never rose into importance, and were compelled to submit to the Ottomans after the unfortunate battle of Mohacz in 1526. The Turks committed to them the internal government of their country, but the *hospodars* were obliged to acknowledge themselves the vassals of the Porte, to pay an annual tribute, to purchase the right of investiture, to furnish auxiliary troops and to admit Turkish garrisons into several strong holds. The geographical position of Dacia, between the Ottoman empire on the one side, and Hungary, Poland and Russia on the other, has been the cause of many calamities to its inhabitants,—calamities from which other Turkish provinces have escaped. Walachia and Moldavia have been at the commencement of every northern campaign the meeting place of the Ottoman armies; if the troops were defeated, the Christian legions entered the provinces, and the inhabitants were thus forced to furnish provisions both for the conquerors and the conquered. The country has besides been agita-

ted by civil wars; the boyars or Walachian and Moldavian lords formed themselves into two parties; the timid declared in favour of their powerful masters; others more bold took the part of their secret friends, the enemies of the Porte. The usual consequences of peace after such revolts were confiscation, exile, imprisonment, and death. Such is in a few words the mournful history of these countries for the last two hundred years. The Walachians and Moldavians cherished the faint hope, while any belonging to the ancient royal family remained, of obtaining a national existence, an independent and hereditary kingdom; that hope, however unlikely to be realized, consoled them in their misfortunes; but for a long time past the Porte has sent every seven years into their country and often within a shorter period, a Greek chosen from the *Drogmans*, a class of men whose character is ably and correctly drawn in the travels of Choiseul-Gouffier. Thus the degradation of the inhabitants must be attributed to the effects of an arbitrary power changing almost every year, committed to a stranger who brings along with him a retinue of other strangers or needy and abject courtiers. Dignities and offices are sold to the highest bidder; the thrones of Walachia and Moldavia, and every other *pachalick*, are publicly bought at Constantinople.

The *hospodars* have not at their disposal the military power of the Turkish pachas, otherwise there might be little difference between them; they retain the ducal cap or coronet^h and the three-tailed standards; their courts are modelled after that of the Byzantine emperors. They must recover from their oppressed subjects the purchase money of their office, pay an annual tribute to the Porte,ⁱ and appease by continual presents the governors of *Ibraïlow* and *Giourgiew*, in order that the commanders of these fortresses may not lay waste the country; it is besides necessary to bribe the *boyars* and *drogmans* in Constantinople, otherwise they might inform against them; money must be transmitted to the members of the Divan, who, in spite of the solemn treaties with Russia, have always the power of denouncing and frequently of getting them decapitated.

The Walachians and Moldavians are governed by a code of laws compiled from that of Justinian, and adapted to the habits and customs of the people; but by an absurd imitation of the Roman proconsuls and Mussulman pachas, the prince is supreme judge; any litigant may appeal to him, his decrees are irrevocable; as he does not know the laws, he is not supposed to decide according to law, but according to his conscience; the decisions of one prince are not always precedents for his successor.^k

The prince disposes of the great offices in the province; the individuals hold them no longer than a year; it is on that account that they seldom take any active part in the business of the Divan or the supreme legislative and administrative assembly. The Greeks that come from Constantinople, monopolize as many places as they can; every *hospodar* has brothers, sisters, nephews, and cousins in his

^a "Jupiter the protector of agriculture."

^b Strahlenberg maintains that hypothesis in his "Nord und Ost-Europa," p. 328.

^c De Guignes, Hist. des Huns, t. I. Part. I. p. 58, 184; Part. II. p. 41, 326, 502; Part. III. p. 321, 323, &c. &c.

^d Thunmann, Peuples Orientaux de l'Europe. (The author confines himself more especially to the Kutzo-Walachian, a dialect mixed with the Albanian, which is spoken in Thrace and Macedonia.) Researches on the different Romanian or Walachian tribes on the south of the Danube, by

Constantine Roscha, Pesth, 1808. Sinkay's Daco-Roman Grammar, Pesth, 1805. Vater (Collection Linguistique, Leipsick, 1816) gives an Italian poem translated *verbatim* into the Walachian, in which every word is a Latin primitive.

^e *Rumanje, Rumukje*.—Adelung.

^f A. D. 212.

^g *Walschen*, Germ.

^h "The couca."

ⁱ "The miri."

^k "The prince has the right of judging in the last resort in every case, solely according to his conscience; and these judicial oracles are binding on his successors."

retinue. These strangers, although they insist that the Walachians are incapacitated by natural dullness or want of education from filling high political stations, do not disdain the offices of *ispraunik* or tax-gatherers, the duties of which may be performed by persons of very ordinary intelligence.

The public safety is intrusted to a body of native militia consisting of about 1200 men, and commanded by the *great spathar*, a Byzantine title that is still retained; but the soldiers are not sufficiently numerous or sufficiently warlike to ensure the public safety; a body of Albanians has lately been added to the troops.

The Walachian and Moldavian peasants are a submissive and patient race of men; without these virtues it would be almost impossible for them to exist in the midst of so many evils. They are sober, gentle and religious or superstitious; they are indolent, because they cannot call the produce of their industry their own. The milk of their cows, a small quantity of pork or bacon, millet or maize, and bad beer, are sufficient to supply their wants; and if they themselves are satisfied, it is a matter of indifference whether European travellers are offended at their humble cottages and the wicker enclosures in which their corn is kept; were they to build granaries, they must submit to additional taxation. The Walachian peasants think it better to dance to the sound of the pipe on the banks of a calm lake, or under the shade of their woods, than to labour for Turkish oppressors. Their country, they say, is a fine desert,—it would be a pity to spoil it by cultivation.

The peasants are no longer legally the bondsmen of the boyars; Prince Constantine Maurocordato abolished servitude in 1735, and by way of indemnity granted to every boyar a number of *socotelniki* or tributary peasants, each of whom was bound to pay his lord twenty piastres every year, or to labour in his service so many days in lieu of that sum: some of the peasants are free; they are composed of the *poluiniki*, or colonists that have recently migrated from Bulgaria, Servia, and some of the Austrian provinces.

The lands of the boyars and the clergy are according to law exempt from taxation. The clergy possess a third part of the landed property in the country, and the annual income of the metropolitan is equal to 400,000 piastres. The abbeys and dioceses are exposed to sale, and the price is put into the coffers of the hospodar, who extorts from time to time immense sums from the richest monasteries. It may be conjectured from the superstitions of the priesthood that their knowledge is very limited; a recent traveller asserts that it is customary to open the sepulchres every seven years, and if the body has not after that period returned to its kindred dust, the being who once animated it, is thought to be in a state of condemnation, or changed into a vampire. The relatives of the unfortunate wretch are compelled to purchase a number of expiatory prayers; the priests sanction the delusion; they are the only men that gain by it. It is difficult to reconcile the truth of the above statement with what has been said concerning the sincere virtue and great worth of the present archbishop Ignatius, the chief of the Walachian clergy, and the founder of many schools. No middling classes exist in the country; the mechanical arts are almost exclusively confined to wandering troops of gipsies; the commerce of Bucharest is in the hands of the

Armenians; the retail trade is engrossed by the Jews, who, although occasionally exposed to the scourges of the common people, pursue their calling with indomitable perseverance.

No germ of civilization can be discovered in these provinces, no centre from which the light of knowledge can emanate; the barbarism of the inhabitants is the consequence of corruption and effeminate indolence; it is vain to think that they could be roused by extraordinary political revolutions or by the destruction, sooner or later inevitable, of powerful neighbouring empires.^a

Nature seems to solicit human industry; in few countries have her blessings been so profusely lavished: the finest river in Europe waters the southern frontiers, forms an outlet not only for the produce of fruitful Hungary, but of all Austria, and opens by the Black Sea a communication between Asia and Europe; still a single vessel is a sight of rare occurrence; the mariner dreads rocks or shallows, Turkish garrisons or the plague. Other large rivers descend from the Carpathian range, and enter the Danube—the only advantage derived from them is a sufficient supply of fish during Lent; wholly neglected in every season of the year, they threaten to inundate the banks which with a moderate degree of care and labour they might enrich or fertilize. No large vessels, a few flat boats only sail on the Aluta,^b the Ialovitza and the Ardschis.

Lower Walachia is unhealthy from its extensive marshes; intermittent and bilious fevers are the common diseases of the country. The mountains and several large islands in the Danube are covered with lofty forests of oak, pine and beech trees, but in place of being used in building ships, they are employed instead of stones in paving the roads and streets; the people from indolence or want of skill are unable to work the immense blocks of granite and limestone in different parts of the Carpathian mountains. The height of Mount Butchez is greater than 6000 feet, and all the mineral riches of Transylvania are found in Upper Walachia; copper mines were once worked at Baya di Rama, and iron mines in the neighbourhood of *Zigarescht* in the district of Gorsy. The small pieces of gold found by the gipsies in the Aluta and other rivers indicate the existence of gold mines as valuable as any in Transylvania; no attempt, however, has been made to discover them. The salt mines are worked, and 7500 tons are annually taken from the one at *Okna Teleagn*.

The climate of Walachia is more temperate than that of the neighbouring countries, but the inhabitants are exposed to two months of cold in winter, and to two of excessive heat in summer. The pastures are fertile in aromatic plants; all the Walachian flocks and others from the adjoining provinces are fattened on them; they might supply a sufficient quantity of food for a much greater number of cattle. The Walachian wool is very valuable; the number of sheep in the country is at least 2,500,000; there are three different kinds, the *Zigay*, the *Zarkam*, and the *Tartar*; the *Zigay* wool is short and fine, the *Zarkam* long and coarse, and the *Tartar* is not so fine as the first or so coarse as the second. Horses and oxen are exported from the provinces. The fields of maize, wheat and barley, the quantity of fine melons and other vegetables, and the woods of apple, plum and cherry trees, are undoubted

^a "They can only be roused by extraordinary political revolutions, or by the shock, sooner or later inevitable, of the powerful neighbouring empires."

May we not rather say, by the gradual diffusion of knowledge and industry, aided by a secure and stable government.—P.

^b *Olt* or *Alt*, in Germ.; *Oltul*, in Walachian.

proofs of the productive qualities of the soil. The wines are strong and generous; if the vineyards were well cultivated, they might be equal to any in Hungary. A thousand other instances of the munificence of nature might be mentioned, but all is of little use to a people without industry and without knowledge.

Mr. Wilkinson, the English consul, estimates the population of Walachia at a million, and that of Moldavia at about 600,000; his estimate is higher than what has been hitherto believed, but the same writer is of opinion that these provinces, after ten or fifteen years peace under a good government, might afford subsistence to at least double the number of inhabitants.^a Were the right of property held sacred, twice the quantity of corn might be produced, twice the number of cattle might be reared, without any extraordinary efforts incompatible with the habits or intelligence of the people. Not more than a sixth part of the land in Walachia is cultivated, and it seldom yields less than 1,250,000 quarters of wheat, but of these 187,500 must be sent to Constantinople; the inhabitants are likewise obliged to supply the same capital every year with 3,000 horses, and 25,000 sheep. Another tax, the *numi* or tribute in money, is rigorously exacted; two millions of Turkish piastres are thus levied in Walachia, and one million in Moldavia. The tributary peasants are arranged according to their wealth or poverty into *loods* or classes; the number of individuals in each *lood* varies from five to ten; there were in 1817, according to the register of the *Great Vestry*, 18,000 *loods*, and the sum paid by them was 10,800,000 Turkish piastres or £360,000. A poll tax is imposed on 100,000 merchants and hucksters, mostly Jews, Armenians, Gipsies,^b and foreigners from different countries. The other taxes^c yield a revenue of 2,730,000 piastres; 600,000 are raised on salt, 380,000 at the custom house, 420,000 from the couriers and post office; the *vinarit*, the *oyarit* and the *dysonarit*, or the duties on wine, mutton and pork, amount to 1,380,000. These sums may appear incredible, but they are paid before they become due by a company of revenue farmers. It is not likely that commerce can flourish in a country where there are so many taxes and tax gatherers. The principal imports are German cloth, English muslin and French cambric; the exports consist among other articles of 500,000 hare skins, 600,000 *okas*^d of the berries of the *Rhamnus infectorius*, useful in dyeing yellow, and 1,760,000 *okas* of excellent wool.

The subdivisions and the manner in which the subdivisions are governed, shall be explained in the tables; but it may be remarked that the country is divided into Walachia Proper on the east of the Aluta, and Little Walachia or the bannat of *Krayova*^e on the west of the same river. The last portion was for some time in the possession of Austria.

The towns may be shortly described; in reality there is only one, in which the hospodar holds his court, and the boyars crowd round his throne; if the viceroy changes his residence, the town is ruined;^f thus Ardschis^g retains only its fine church with its marble columns. If Busco can be compared to a small provincial town, it owes that advantage to its bishop, its priests and its friars.^h The ramparts and

palaces of *Tergowischti* are falling in ruins, but the air still salubrious and the position delightful; it was peopled at one time by 30,000 individuals; at present it does not contain above 5000 inhabitants. *Bucharest*ⁱ is now the favoured spot; how long it may continue so, is uncertain; the houses or rather cottages are for the most part built of clay, and near them are several large convents, numerous towers and sixty Greek churches, in the midst of gardens, groves, and public walks. The population amounts to 60,000 souls. The Boyars ride in gilt carriages,—play at faro,—pay their court to the prince,—appear at the reviews of the Albanian guard,—attend the German theatre, and long for the opening of the Italian opera, which cannot, it is thought, be much longer retarded, as the building is now nearly finished. The Greeks from Constantinople manage the financial department, and are adepts in all the corruption and vices of the court. The youth are instructed in the ancient gymnastic exercises,^k and some Greek physicians, educated in Germany, retain the studious habits which they acquired in the universities of that country. The languages spoken by the higher classes are modern Greek, bad Italian, and worse French. The women are not so closely watched as in other Turkish countries; they are more intelligent, their manners are more agreeable, but although they are not excluded from social amusements, their condition is by no means enviable. Marriages are made without consulting the inclinations of the parties; if a lady has a number of suitors, the wealthiest amongst them, or the one who agrees to marry her with the least dowry, is always preferred by her parents; but the most serious evil is the scandalous facility with which divorces can be obtained, or rather with which marriages may be nullified. A rich man can at any time repudiate his wife; on this point, the discipline of the Greek church in Walachia is shamefully relaxed.

Some other towns may be briefly enumerated. *Fokschani* is situated on the road that passes by Busco from Bucharest to Moldavia; it is peopled by 6000 souls, and adorned with a great many churches; the neighbouring fields are covered with vineyards. *Ployesti* is resorted to on account of its fair. *Philipechti* has fallen into decay; some boyars still reside in its castles. The merchandise of Cronstadt in Transylvania is deposited at *Kimpina*. All these towns are situated to the north of Fokschani, in a mountainous but populous country. *Kimpolung*, a town in the northwest of the province, retains its immunities, but has lost its commerce. *Slobajat*, on the Jalonitza, is the only town worthy of notice on the plains of the Danube, the theatre of so many wars. *Oraschul*,^l on the same plains, is not likely to recover its former grandeur. The crescent floats on the ramparts of Giurgewo and Brailow, the fortresses from which the Turkish troops issue to pillage the fields, and carry off the flocks. The protection of Russia, granted in 1771, and renewed in 1812, is no security against the incursions of barbarians.

Krayova, the capital of western or Little Walachia, is regularly built, and peopled by 8000 inhabitants, of whom a great proportion are tradesmen and artisans; and *Izlas*,

^a Wilkinson's Account of Walachia and Moldavia; or Tableau de la Walachie et de la Moldavie, par M. Wilkinson, traduit avec des additions importantes par M. de la Roquette.

^b Tchiganes.

^c "Les droits regaliens," the royal duties.—P.

^d The *oka* is nearly equal to a pound.—Tr.

^e Crajova, Craiova.

^f This has happened successively to Ardschis, Busco, and Tergowischti (Tergovist.)—M.B.

^g "It is still called *Kurte*, the court."

^h "Son eveche et ses foires," its bishop and its fairs.

ⁱ More correctly, Bukorest.—M.B.

^k "The Greek gymnasium is flourishing." This undoubtedly refers to a public school or college.—P.

^l Oraschul is generally, but incorrectly written Orash.

^m "Oraschul de Flots"—the town of Flots or Flost. *Oraschul* signifies town, in Walachian.—P.

at the junction of the Akuta, is likely from its position to become a commercial town. It was at the village of *Balta-Wierda* that the Tartars assembled to divide their spoils after a successful campaign against Austria. An old tower which is still shown at *Kimpul-Severinulici*, another village, is believed to be the remains of a bridge built over the Danube by the emperor Severus.

The passes between Walachia and Transylvania are highly important in a political and military point of view; they form advantageous military stations and commercial roads for the Austrians. The most remarkable are those of *Botza*, *Torzburg*, *Vulcan*,^a and the *Red Tower*; at the latter the Carolinian way begins, the immense but now neglected work of M. Stainville, a French engineer in the service of Austria.

Moldavia, at present limited by the Pruth, a great tributary river that enters the Danube, is the most northern province in the Ottoman empire; it extends between the Russian and Austrian dominions, like a promontory between two boisterous seas threatening to overwhelm it. Although the country is situated on the eastern declivity of the Carpathian mountains, the interior forms an extensive plain, intersected by the Pruth and the Sereth. The bold and steep banks of these rivers appear at a distance like a range of lofty hills; but the stranger who leaves Jassy must travel twenty-eight leagues before he comes in sight of the Carpathian chain. The Moldavian winters are often intensely cold; in 1788, Reaumur's thermometer stood at 21° below zero.^b The summers on the contrary are very warm; the grape is ripe by the end of July, and the vintage is over in the month of September. Moldavia is exposed to frequent earthquakes, but they are never violent.^c The same country abounds in mines of every description, all of which are neglected; were the inhabitants to work them, the produce of their labour would without doubt be sent to Constantinople; on that account no wealth is now derived from the famous mines near Baya on the Moldavia.^d Salt is obtained in great quantities; 75,000 tons^e are taken from the pits at Okna, and at no great distance is a large rock formed by a mass of crystalline salt.^f The principal trade of *Soroka* on the Dniester consists in saltpetre, but the process used in making it is very defective; a considerable quantity is exported by the Polish Jews, who receive brandy in exchange. Sulphureous springs have been discovered near *Grosseschti*, and not far from the *Sereth*, on the road between *Baken* and *Roman*. The *Bistritza* rolls its golden sand, and the district of *Niamz* abounds in ferruginous springs. Wheat and barley are cultivated throughout the country; the barley is given to horses: millet too is a very common crop; it is roasted and made into *talk*, a Tartar substitute for coffee. Buckwheat was at one time almost the only kind of grain in the province, but Prince Nicholas Maurocordato introduced the culture of maize^g in 1710; from the one or the other of these is made a kind of pottage, called *Mamaliga*, which forms the principal food of the country people in Moldavia,

Servia, and Walachia. The best maize grows in the neighbourhood of *Huscht* and *Paschkan* on the *Sereth*.

The cultivation of fruit trees and esculent plants is not in a very advanced state; such as are in most common use are the *Solanum melongena* and the *Hibiscus esculentus*; the melon thrives throughout the province, and the grape is the most valuable of the Moldavian fruits. A great quantity of wine is exported to Poland and Russia, particularly to Nishnei-Novgorod; the annual average duty levied during the vintage amounts to 380 *purses* or 190,000 piasters; now as a piaster is imposed on ten buckets or *eymers* of wine, it follows that the number of *eymers* obtained annually is not less than 1,900,000.^h That estimate, however, is much too low; the boyars, who collect the tax, always under-rate the produce of their own lands; besides at least a tenth of the vineyards are in the hands of the clergy; their portion is exempt from imposts; many individuals enjoy the same privilege, so that the quantity of wine produced in an ordinary season is more than double what has been stated.ⁱ The *Odokescht* is considered the best Moldavian wine; next to it is the *Kotmar*, which is like, but inferior to champagne; different sorts of a good quality are made in the neighbourhood of *Huscht*, *Nikorescht*, and *Jassy*. *Vermouth* and other kinds of brandy are common in the country.^k The cultivation of the vineyards and the art of making wine might be greatly improved; one of the clumsy methods to which the inhabitants have recourse, consists in exposing their wine in barrels to the winter's frost; the crust of ice is perforated with a red-hot iron, and in this way the aqueous particles are more freely disengaged, and a stronger liquor flows from the cask.

Many districts are covered with rich pastures or extensive forests; numerous herds of swine are fattened on acorns in the woods, and a variety of which the hoof is not cloven, is common, says M. Wolff, in the district of *Orhei*. The Moldavians pay great attention to their horses; several boyars have no fewer than four or five hundred mares; these animals are highly valued in Austria and Prussia, and are mostly used by the light cavalry; but beyond the Pruth, in that part of the country ceded to the Russians, the horses are stronger and as active. The oxen are of a better kind than the Walachian, and great numbers are exported every year to Silesia and Bohemia. The goat and the sheep abound in the province; the number of sheep is not less than 3,248,000, but the people are compelled by law to sell a certain number to the Turks at a price fixed by the prince or governor, who, to gain popularity at Constantinople, makes the price almost nominal.

The forests are well stocked with deer, wild boars, chamois and hares; there are besides a great many bears, wolves, foxes and martens, of which the skins are exported to different parts of Europe. Peacocks, pintados and hawks are kept at the country seats of the nobles, it is customary to send every year twenty-four falcons to the Grand Seigneur. Few countries are better supplied with bees;

^a "Wolkan, a name common to many Servian, Walachian and Bulgarian princes, is equivalent to *centaur*."

^b If the above statement be correct, the degree of cold must have been equal to 15½° below zero of Fahrenheit.

^c Wolff, *Mémoires sur la Moldavie*.

^d *Baya* in Moldavian and *banya* in Hungarian signify a mine.

^e "1,500,000 quintals."

^f Sulzer, *Transalpin. Dazien*, t. I. p. 146.

^g Names of plants in the Moldavian language—maize, *popschoi*; *Sola-*

num melongena (egg-plant), *pot luschaelye*; *Hibiscus esculentus* (okra), *bamie*.—M.B.

^h The *eymer* varies in different countries; it amounts probably in Moldavia to nine gallons.—Tr.

ⁱ It is estimated by M. Wolff at 4,200,000 *eymers*.—M.B.

^k *Vermouth* is not a kind of brandy, nor is it so stated in the original, but simply that *vermouth* and brandy are made in the country. *G. vermouth-vein* (wormwood wine), purl royal, wine medicated with wormwood and other aromatics.—P.

these insects cost but little trouble; the hollow trunk of a tree is closed at one end, and thus converted into a hive; all the swarms^a are destroyed in October by the vapour of charcoal; the hives are covered with straw or hay, or deposited in cellars, during winter;^b before the division of the province, the prince derived a revenue of 60,000 piastres from the tithes on honey and wax. Moldavia is overrun with grasshoppers; in one season these insects destroyed all the fields of maize.

No towns of any note are situated in Russian Moldavia on the east of the Pruth; the Russians desired and obtained the three fortresses of *Chotzin*, *Bender*, and *Ismail*. *Boluschani*, a commercial town, peopled by four or five thousand inhabitants, *Piatra*, where several fairs are held in the course of the year, and *Niamtsch* with its monastery, the residence of 500 *kalogers*, who boast of possessing a miraculous image of the Virgin in massive silver, are the most important places in the high districts. The name of *Niamtsch* is not derived from *Niemetz*, a German, but from *Niam*, a Slavonic divinity^c that was adored at *Niamtsch* or *Nimtsch* in Silesia. The ruins of *Semendrowa* or *St. Andrews*, a Slavonic city near *Roman* on the *Sereth*, are still visited by strangers. Some notion may be formed of the condition of the people from the description which *M. Wolff* gives of a Moldavian town. "Small houses made of wood and covered with clay, ill cultivated gardens, narrow and dirty streets, a large inn where travellers, tormented with insects, can obtain no other food than coarse *mamaliga*, no other drink than bad wine, are the common defects not of one but of every small town in the country. The wind circulates freely in the house of an *ispraunik*; the paper windows may be easily torn, and it is very difficult to keep the doors shut; the habitations of the *isprauniks* are of course superior to the dwellings of those who pay tribute."

Jassy, the capital, is situated on the side of a hill in a fertile country,^d but the river *Bakloui*, which is not unlike a continuation of the marshes, and the miasms that rise from the drains in every street, render the town unhealthy. The only villas in the neighbourhood are two near the vineyard of *Kopo*; they belong to the *Waiwode*. The five thousand houses in *Jassy* are placed together without any regularity; there are hardly two hundred which are built of masonry, or fifty which consist of more than a single story. The ancient palace, which is supposed to have been built by the Romans under *Trajan*, was formerly the largest and finest edifice in the town; it was burnt in 1783, and has not since that time been rebuilt. The wealth of the inhabitants is displayed in their dress and ornaments, not in their feasts or entertainments. The wife of a rich *Boyar* exhibits sometimes on her person, jewels and pearls worth about twenty or thirty thousand piastres, but foreign wine is rarely seen on the tables of the nobles. The country, the towns, and, above all, the capital are crowded with mendicants.

The genius of Catherine, and the cowardice of the Vizier,

^a "Les essaims gras ou maigres," such swarms as abound or are deficient in honey. It would be idle to destroy all the swarms, for their stock would thus be annihilated.—P.

^b *i. e.* such hives as are preserved for keeping up the stock.—P.

^c "The Slavonic god of death."

^d "Jassy is situated in a pleasant and fertile plain, at the foot of a hill which rises with a gentle acclivity."

^e "The Jews, both the circumcised and those who are called Greeks,

whom Charles the Twelfth justly insulted, were the means of saving the Czar and the Russian army at *Huscht* on the banks of the Pruth.

Galacz, a town of seven thousand inhabitants, is the most commercial of any in Moldavia or Walachia; its port, which can admit ships of 300 tons, is always crowded with Austrian, Russian, and Ottoman vessels. It might become the Alexandria of the Danube, if the three great powers could establish a lasting peace among themselves, or were politic enough to erect an intermediate kingdom on the Lower Danube. The Walachians send a great part of their produce across the mountains to Transylvania or to the port of *Varna*, but the imports for both the principalities pass by *Galacz*. The Greek Jews in the town deal in cloth, silk, and fur, but the real children of Israel confine themselves to trinkets and jewels;^e the Russian sells hides and tobacco; the grave Mussulman brings his fine morocco leather, his spices, and his aromatics, one of which, *odogatch*, a resin that is extracted from the *Agallochum verum*, is very valuable; an ounce is sold for a ducat;^f the rich perfume their beards with it, and it is customary when people of distinction visit them to put a small quantity in their pipes.

It is difficult to say whether the Walachian or Moldavian government is the worst. The prince, who is the vassal of the Turks, exercises despotic authority over the Boyars, whom the Greeks call *archontes*, and the Moldavians *kukons* or Lords. The manner in which justice is dispensed, is as imperfect as any other branch of the government; a uniform system of legislation is rendered impracticable from the frequent removals of the princes, and the right which they have of abrogating all the decrees of their predecessors. In cases in which customs and usages are not sufficient, the Divan consults an abridgment of the Roman code by *Armenopolus*, a writer that was contemporary with *Alexander the Good*, whose reign began in 1401 and terminated in 1433; before that time there were no written laws in Moldavia. The decisions of the Divan are always arbitrary; the few statutes that are in force, are falsely interpreted; hence arise many complicated law-suits, which the prince or subordinate judges can unravel with incredible despatch, if either party is prudent or rich enough to bribe them beforehand.^g

The revenue of the governor is chiefly derived from the *birr*, a tax that is exacted every month, because the Viceroy is uncertain how long he may hold his situation. Imposts are levied on cattle and different articles of consumption; it appears from authentic documents, which *M. Wolff* was permitted to examine in the country, that the taxes raised in Moldavia amount annually to 2,430,000 piastres. It is thus obvious how greatly *Sulzer* and *Carra* were mistaken, when they computed the total revenue to be 250,000 piastres. The prince must deduct from this sum 325 purses or 162,500 Turkish piastres as a tribute to the Porte.^h The presents for the Sultan, his relatives and ministers, the expenses of transport, and the pay of the

deal in woollens, silks and furs, but the real children of Israel reserve to themselves the trade in jewels."

^f "A quarter of an ounce costs a Dutch ducat."

^g "Hence a crowd of complicated law-suits, which the prefects, however, decide, according to *M. Wolff*, with great promptitude and sagacity, unless they are bribed beforehand."

^h The hospodar of Moldavia is responsible to the Porte for a yearly tribute of a million Turkish piastres (33,333*l.*;) and the total revenue of the country is said to amount to 4,666*l.*—P.

public functionaries, are not less than 230,000 piastres^a. To cover all these expenses without diminishing his own revenue, the governor uses every pretext to extort money from his subjects. Thus, it often happens that one *vaiwode* supplanted by a greater adept in intrigue, returns to Constantinople with full coffers and in the company of Turkish usurers, who advanced him money when successful candidate, and followed him to his government in the expectation of receiving exorbitant interest. The Turks participate sometimes in the booty of a deposed prince by borrowing from him large sums, which if he refuses to lend, charges of mal-administration are raised against him, his wealth is confiscated, and he himself sent into exile. To obviate such difficulties, the *vaiwodes* take the first opportunity of investing in foreign funds the money which they gain in the province.

The good qualities of the people are stifled by oppression. Prince Demetrius Kantemir declaims against the pride, avarice, and ignorance, of his subjects and countrymen; but he himself was not free from these vices. M. Wolff, the German consul, reprehends them with equal severity. Although given to hospitality, the higher classes are haughty and harsh to the lower, and crouching to their superiors; mean, pliant, suspicious and vindictive, and as jealous as the Turks. According to Count Karaizai, the men are strong and well-made, their intelligence and ingenuity enable them in some degree to supply the want of machinery and manufactures; their greatest vices are drunkenness, idleness, and an inveterate attachment to established customs. The women in their youth are gay and cheerful, in the married state they soon bear the marks of premature old age; the wives of the peasants, the mothers of families, are condemned to labour like slaves; few hours of joy or amusement vary the dull monotony of their lives.

Many Walachians have migrated from Transylvania and Hungary, and settled in Moldavia; the native^b considers himself above them, and calls them *Ungareny*; the difference in their manners and dialects is hardly perceptible.

We shall conclude our account of European Turkey with some observations on a different people, not the Turks, or haughty rulers of all these provinces. We have endeavoured in another part of this work to describe that degenerate nation, its manners, government, power, and resources.^c It is necessary to descend still lower in the chain of civilization, and to examine a people^d scattered like the Jews in every country, but without the distinction of a peculiar religion. "They have wandered through the world, and in every region, and among every people they have continued equally unchanged by the lapse of time, the variation of climate, and the force of example. Their singular physiognomy and manners are the same in every country. Their complexion receives no darker shade from the burning sun of Africa, or any fairer tint from the milder climates of Europe. They contract no additional laziness in Spain; they acquire no habits of industry in England. In Turkey, they behold the mosque and the crescent with the same indifference that they look on a catholic or protestant church in Europe. In the neighbourhood of civilized life, they

continue barbarous, and near cities and settled inhabitants, they live in tents and holes in the earth, or wander from place to place like fugitives and vagabonds." These people are lively, fickle, and faithless to every one, even to their own cast, addicted to sensuality, and, like savages, indifferent about the choice of their food. If an ox die of disease, and they can obtain its carcass, men, women, and children hasten to the feast, and after their brandy or strong drink is exhausted, they pursue their journey, or take up their quarters for the night.^e The women may be distinguished by their dark and sparkling eyes, tanned complexion, oval visage, white teeth and jet black hair. They deal in prostitution, wanton dances and fortune-telling; the mother trains her daughter in vice, and the daughter is scarcely grown before she follows the example of her mother. Although their clothes hardly hang together, a stranger perceives sometimes part of a military coat, the fragment of a lace cap, a torn handkerchief or paltry trinket; their gait and deportment, when thus adorned, evince a more than ordinary share of vanity.

The wandering tribe of Zigeunes find occupation in some countries as smiths and tinkers; they mend broken plates, and sell wooden ware; a class of them in Moldavia and Walachia lead a settled life, and gain a livelihood by washing or searching for gold in the beds of rivers;^f those in the Bannat of Hungary are horse-dealers, and are gradually obeying the enactments of Joseph II., by which they are compelled to cultivate the land; but the great majority in Europe abhor a permanent residence and stated hours of labour. The women abuse the credulity of the German and Polish peasants, who imagine that they cure their cattle by witchcraft, and predict fortunate events by inspecting the lineaments of the hand. It is lawful for the wives of the *Tchinganes* in Turkey to commit adultery with impunity. Many individuals of both sexes, particularly throughout Hungary, are passionately fond of music, the only science in which they have as yet attained any degree of perfection; they are the favourite minstrels of the country people; some have arrived at eminence in cathedrals, and in the choirs of princes. Their guitar is heard in the romantic woods of Spain, and many gypsies, less indolent than the indolent Spaniards, exercise in that country the trade of publicans. They follow willingly whatever occupation most men hate or condemn; in Hungary and Walachia they are flayers of dead beasts, and executioners of criminals—the mass of the nation is composed of thieves and mendicants.

The total number of these savages in Europe has never been considered less than 300,000, or than 150,000 in Turkey, 70,000 in Walachia and Moldavia, and 40,000 in Hungary and Transylvania; the rest are scattered in Russia, Prussia, Poland, Germany, Jutland, Spain and other countries. Persia and Egypt are infested with them; they have appeared in Spanish America.

The race of the gypsies, however abject, has been the subject of numerous researches, and from some of them considerable information may be gained on the origin and classification of different nations.^g It might be thought from their various names that all the tribes are not of the same

^a "To this must be added the extraordinary presents to the sultan, and to the mother and ministers of the sultan; the expenses of transport, and the pay of the public functionaries, which amounts to nearly 230,000 piastres per annum."—P.

^b The natives call themselves *Moldoweny*.—M.B.

^c Book XXIX.

^d The Gypsies or Bohemians (*Zigeunes*.)

^e A gypsy, when censured on account of his taste, replied that a beast which God kills, must be as good as any killed by man.

^f These people are called *Zinganis* by the Walachians and Moldavians.

^g All the researches anterior to the year 1787, have been united by Grellmann in his history of the Zigeunes. The vocabulary in the same work

origin; they call themselves *Romi*, *Mamusch* and *Gadzo*, which signify men; each of these appellations is connected with a separate language, the first with the Copt, the second with the Sanscrit, and the third with the Celtic. It has been lately proved by a careful and unprejudiced writer, that *sinte*, a plural noun, is the only national name recognised by those of Prussian Lithuania. The title next to it in importance is the Polish one of *Zigani*, which corresponds with the *Zigonas* of the Lithuanians, the *Zingani* of the Walachians, the *Zingari* of the Hungarians and Italians, the *Zigeuner* of the Germans, the *Tchinganes* of the Turks, and the *Atchingans* of some writers that lived during the middle ages. Such are the names by which at present they are most commonly designated;^a it may be remarked, however, that the English term, Gypsies or Egyptians, and the Spanish, *Gitanos*, are derived from *Pharaouni*, a name by which a horde of these vagrants distinguished themselves in the middle ages. They passed through Bohemia into Germany and France, and have for that reason been styled Bohemians. The Persians call them *Sisech Hindou*, or Black Indians.

The historical traditions concerning the tribe, are reduced to the vague recollection of an ancient and happy people under princes of their own race, that inhabited a country which according to the doubtful assertion of a writer of the fifteenth century, the first Zigeunes called Little Egypt. It is also affirmed that when they first appeared they were conducted in their migrations by dukes, princes, and even kings. All the knowledge derived from their history is that they have wandered for many ages. No trace of their worship or religious belief, if they have any, can be discovered. They follow the customs of the countries in which they reside.

The only information which can be obtained concerning their origin must be founded on the nature of their language; but the dialect of such a tribe, it may be supposed, is made up of the cant terms of beggars and pickpockets, or not unlike the *rothwelsch* of the German banditti, or the jargon of the *Kataphiani*, the itinerant physicians in Turkey. Such, however, is not the case, and a people without a country, an asylum, laws or religion, speak a regular language, furnished with grammatical forms. Not less than two or three hundred of its principal roots have been shown to be the same with as many in the Sanscrit, and other Hindoo languages;^b in short, it is a branch of that Indian family, in which the Sanscrit is not the source as many term it, but the most regular and the best known; in the tents of these wanderers are spoken the dialects of the *Vedas*, the *Puranas*, the *Brachmans*,^d and *Buddha*. The above fact was confirmed by Buttner; it need not however excite surprise if the language of the Zigeunes, from their migra-

tions or common origin, is connected with many others different from any yet enumerated. Thus its relation with the Persian may be easily explained;^e it has been demonstrated that it contains about forty Slavonic words, the most of them expressive of natural objects,^f and we have lately observed in it as many Finnic, Permiak, Wogul and Hungarian terms.^g These discoveries cannot be considered useful until the means have been obtained of classifying the different hordes and marking the distinctions by which they are separated. The structure of the auxiliary verb is the same as in the Indo-Pelagic tongues, but the pronouns have a remarkable analogy with the Persian, and the declension of nouns with the Turkish.^h

What conclusion can be drawn from all these facts? The learned Grellman and his friend Buttner have not hesitated to affirm that the Zigeunes are one of the low Indian castes expelled from their country during some great political revolution, and in consequence of that event, now accustomed and habituated to a wandering life. The Hindoo character of their language, their physical qualities, and the name of *Sinte* by which they are often called, are three strong arguments in favour of the hypothesis at present generally admitted. Several writers have attempted to ascertain the period of their migration and the region which they formerly inhabited. The devastations committed in India by Tamerlane about the year 1400, afford a plausible pretext for their flight. It may too be kept in view that their country should be sought in the western part of India near the banks of the Indus or the Sindu. Pallas infers from their dialect that their ancient country was Moultan, and their origin, the same as that of the Hindoo merchants who reside at Astrakan.ⁱ Fra Bartolomeo believes they came from Guzerat, perhaps from the neighbourhood of Tatta, where a horde of pirates called Tchinganes still reside.^k Lastly, Richardson boasts of having traced them among the Bazigurs, a wandering tribe of minstrels and dancers.^l If it be necessary to trace their descent from the inferior Hindoo castes, none in our opinion resembles the Zigeunes more than a tribe of the Sudras, called "the Correwas, who have no fixed abode, but lodge in tents; they live by selling baskets or mending kettles, and their women gain money by fortune telling."^m Such employments are descriptive of the gypsies.

Few objections of any importance can be raised against the general hypothesis, but the details connected with it are not so easily explained. Thus if the Zigeunes were Parias, it is not likely that they would have been the particular objects of Tamerlane's persecution, and it is probable, if they had been, that they would at once have professed Islamism as they now do in Turkey. If they were Tchinganes, the ingenious supposition may be admitted that they fled by sea

was furnished by Buttner. The other works on the subject are: an account of the Prussian Zigeunes, written by M. Krause and M. Zippel, in the Berliner Monatschrift, February and April, 1793; Comparative Vocabularies by Adelung, Mithridates, t. I. p. 244; Extracts from the manuscript grammar of M. Krause, by M. Vater, in his supplement to the Mithridates, p. 86; and lastly, Richardson's account of the Bazigurs, Asiatic Researches, vol. VII. p. 451.

^a "We consider this, at present, as their most proper national denomination."

^b Multanee, Bengalee, and Hindostanee.

^c Thus, *kam*, the sun; *sohon*, the moon; *bhu*, the earth; *ag*, fire; *pani*, water; *sonknai*, gold; *rup*, silver; *iakh*, the eye; *kan*, the ear; *lolo*, red; *kalo*, black; *kamela*, love; *schina*, life; *ratch*, night; *schero*, the head, &c. &c. It may be seen from these and other examples that the *Zigeunian* is not remotely related to the Sanscrit and other Hindoo languages, like the Greek, Latin, Slavonic and Gothic, but is properly a Hindoo dialect.

^d *Bramin* is the modern name—*Brachman* is a name of the ancient Gymnosophists.—P.

^e We observe an analogy with the Persian and the Gothic in the verb to make; *kir*, make; *me kirava*, I make; and *me kerdum*, I did make.

^f Adelung and Vater, Mithridates, II. 247; IV. 85.

^g For example, sea, *sevo*, *Zig. saris*, Perm. *sarc*, Wog. ; mountain, *hedja*, *Zig. hegy*, Hung. ; a hill, *dombo*, *Zig. domb*, Hung. ; heart, *sic*, *Zig. szu*, Finn. *sziv*, Hung. ; oats, *dschon*, *Zig. zab*, Hung. ; town, *forius*, *Zig. város*, Hung. ; mist, *koeddo*, *Zig. kœd*, Hung. ; knee, *tchanga*, *Zig. tchantch*, Wog. ; old, *puro*, *Zig. pyras*, Perm., Ostiak, &c. &c.

^h *Sinte*, the Zigeunes; ablative, *Sintenden*, like *erlerden* in Turkish.

ⁱ Pallas, Neue nordische beitrage, III. p. 96.

^k Paulin de St. Bartolomeo, Voyage, II. p. 197. French translation.

^l Asiatic Researches, VII. p. 451.

^m Valentyn, Oud end Nieuw Oostindien, vol. A. p. 88. (*Kust Choro mandel*; a, Derde boek, Tweede hoofdstuck.)

and arrived in Egypt; but it is necessary to account for the change in their character, these warlike pirates are now medicants and poltroons. If the Zigeunes were originally a branch of the Sudras, or Banians from Moultan, how happens it that no trace of their superstition is left? If it be answered that the Correwas and other low castes are as ignorant and as wretched as the Parias, then it must be shown why people so obscure were expelled from a country in which their neighbours and equals were permitted to remain.

Another objection of a more general kind may be urged against the supposition that the Zigeunes migrated from Indostan about the year 1400. Numerous and thickly scattered hordes inhabited Walachia, Hungary, and Poland, in the year 1450, while only a few detached bands appeared in Persia, Tartary and Caucasus.

The celebrated M. Hasse, the author of a different hypothesis,^a has proved that for the last 3000 years there have been in Europe wandering tribes that bore the names of *Sigynæ* or *Zigeunæ*, and *Sintii* or *Sinti*; the same writer considers the modern gypsies, the Zigeunes or Sinties, the descendants of these ancient hordes. A Polish geographer, M. Lelewel, has clearly shown that Hindoo nations have been settled since the dawn of history on the shores of the Cimmerian Bosphorus and in Europe, particularly in Thrace.^b The merits of both these systems may be shortly examined.

A tribe whose name was almost the same as that of the Zigeunes, is mentioned in the most ancient profane history. "The *Sigynæ*, who resemble the Medes in their dress, live on the north side of the Ister (Danube,) in a country which seems to be desert; at least they are the only inhabitants of whom I have received any information. They have little horses with long hair, which are not strong enough to carry men, but able to draw cars with great rapidity. Their frontiers extend to those of the Heneti, a people on the Adriatic. They call themselves a colony of Medes, a point concerning which I cannot decide, though it may be true, if we make allowance for the lapse of ages. The Ligurians give the name of *Sigynæ* to travelling merchants, the Cyprians to a kind of javelins or spears."^c Such is the testimony of the father of profane history. Strabo describes a people bearing the name of *Sigyntii*^d who resembled the Persians in their manners, and who inhabited the Hyrcanian mountains on the south side of the Caspian sea. In the Argonautics of Apollonius Rhodius, the *Sigyntæ* are placed near the mouth of the Danube,^e and in the poems ascribed to Orpheus, in Pontus.^f

Sufficient evidence of their ancient migrations is afforded by their settlements in these three distant countries. The description of their horses corresponds with that of the same animal in Bashkiria and on the plains of Scythia.^g We cannot determine whether the Caucasian *Zingi* of Pliny, or the Indian *Singæ* of the same author, were not different as to their origin from the Zigeunes or Zinganes; or if any traces of these ancient and errant tribes existed in Cappadocia, and in the town of *Zigana*.

Different hordes of the same people are probably descended from the *Sindi* or *Sinti*, the ancient inhabitants of *Sindica*, a country near the Cimmerian Bosphorus. It is supposed from the ancient manuscripts that the name of that region is *Indica*;^h the words *Sind*, *Hind* and *Ina* are almost synonymous, and generally confounded by orientalists. Hesychius reconciles at all events the opinions of the ancients, and calls the *Sindi* an Indian people. The traditions concerning the commercial industry of these tribes, their cowardice, their submitting to the lash of Scythian masters, the prostitution of their women, whose name became a term of reproach, are so many proofs of their common origin with the Zigeunes, or Sinties of the present day.^k It is a curious fact, and one maintained by Stephen of Byzantium, that the *Sindi* used to carry, on solemn occasions, a figure of the *lingam*;^l the same custom prevails in Indostan. Different branches of the same people were scattered throughout Macedonia, a country in which we observe a *Sintie* district, and in Lemnos, where the *Sintii* were the *workmen of Vulcan*; such employment is still the chief occupation of the Zigeunes.

The *Sinti* and *Sigyntii* are not the only Asiatic people dispersed in Europe, or on its confines. The Scythians of the royal tribe were of Median origin, and a reference to the Zend language enables us to explain the ancient geographical names of Scythia. The opinion of D'Anville concerning the Tartar origin of the Getæ is now generally rejected; it is expected that ere long additional information may be obtained from the researches of M. De Saint Martin on the *European India* of the Armenian writers. It is known that the lower Danube was anciently called *Mateus*, a name supposed to have been derived from the Indian hero *Madhu*, the antagonist of *Krishna*, or from the word *madhur*, which signifies fresh water. A town called *Aigyptos*, in Scylax *Aigyptos*, was founded, according to Ovid, by a Caspian, on the delta of the Danube;^m from that place, in all probability, the Zigeunes obtained the title of Egyptians or Gypsies. The existence of the *Indi* in Asia Minor, between the Carians and the Cilicians, is attested in the history of the Maccabees, and completely proved in a different work.ⁿ

It may be concluded from these detached facts, that tribes of the Hindoo race have been wandering or settled in Europe or its confines from the earliest historical age. It is for the historian and orientalist to examine how they came thither, whether they migrated in an age of which no record is left, or were the enemies of Krishna, a supposition that might explain their singular pretension of having formerly rejected Christ; or if they were a branch of the *Hinduwan Berber*, that the Schah Nameh places in the *hyperborean* regions, or colonies transported from the Indus by the despots of Persia. The geographer has discovered that there existed at an ancient period in Europe, tribes from which the Zigeunes or Sinties appear to have been descended. It is unnecessary for him to extend his inquiries beyond that remarkable fact, or to explain why these petty hordes remained so long unknown in the midst of so many

^a J. G. Hasse, *Die Zigeuner im Herodot.*, Königsberg, 1803. This hypothesis was first maintained by Behr, *Zusätze zur allgem. Welthistor.* III. sect. 54.

^b Lelewel, *Badania starozytnoci geographii, &c.* (Researches on ancient geography,) Wilna, 1817.

^c Herod., p. 183, ed. Stephani. See Sturtz. *de lingua Maced.* p. 46.

^d Strabo, XI. p. 520. Ed. 1620.

^e Argonautic. IV. 220.

^f Orph. Arg. V. 754.

^g Georgi, *Russisches Reich*, III. sixth section, p. 1659.

^h "The name of that country, in the manuscripts, is written *Indica*."

ⁱ Herodotus, IV. 28. Ed. Wessel. p. 293, note 7; IV. 86, not. Valck. p. 321, note 19. M. Lelewel has placed on his maps, *India polnocznia*, or northern India.

^k Dureau de Lamalle, *Notes on Valerius Flaccus*, III. p. 102.

^l Organs of generation.

^m Ovid. *Pont. I. Epist. 8. IV. Epist. 7.*

ⁿ 1. Maccab. chap. VIII. verse 8. Claudius on the Indians of Asia Minor, in *Repertor. f. bibliche Litteratur*, XI.

wanderers and savages during the Roman empire in the east. They might have called themselves *Roma*, from being subjects of the Romans, they might have wandered in the marshes of Lower Walachia, and Little Egypt, where they are said to have formed a state, which was situated perhaps in the neighbourhood of *Ægyptos*. The *Zigeunes*, the *Sinties*, the *Gypsies*, the *Bohemians*, and the *Tchinganes*, are probably so many tribes distinguished by their dialects and local migrations.

INCREASE AND DECLINE OF THE TURKISH POWER.

The reader will find in the first volume of this work, a general view of the Ottoman empire;^a but we thought it better to postpone to this period the observations we had to make on the increase and decline of the Ottoman power.

The rapid progress and still more rapid decline of the Ottoman or Turkish power are among the most interesting phenomena in the history of Europe. The Turks are descended from a horde of Tartars, who emigrated from the countries contiguous to the Caspian Sea about the year 850, and who, for several centuries after, interfered with decisive effect in the contests and revolutions of the Saracen Asiatic nations. Othman, the chief of the Oguzian Tartars, is reckoned the real founder of the Turkish empire. He succeeded his father in 1289, his dominions being then confined to the lordship of Siguta in Bithynia, and a small tract of adjoining territory. But the talent of Othman, and the bravery and zeal of his followers, enabled him to add greatly to his paternal inheritance, and to bequeath the whole of Bithynia and Cappadocia to his son and successor. From this period the tide of Turkish conquest began to roll forward with a force that could not be checked by the feeble resistance of the Greeks. In 1338, the Ottomans first obtained a footing in Europe.^b In 1362, Amurath, the grandson of Othman, instituted the Janizaries, the first, and for a long period the most powerful, numerous, and best disciplined standing army established in modern times. The conquests of Timur threatened to subvert the Turkish power; but it soon recovered from the shocks it had sustained; and, in 1453, Mahomet II. entered Constantinople sword in hand, and established himself on the throne of Constantine and Justinian! But the undisturbed possession of all the countries from Mount Amanus to the Danube, did not satisfy the restless and insatiable ambition of the Turks. Selim, the grandson of Mahomet II., added Syria and Egypt to the dominions of his ancestors; and Solyman the Magnificent, the contemporary of the Emperor Charles V. and the most accomplished of all the Ottoman princes, conquered the greater part of Hungary, and in the east extended his sway to the Euphrates. At this period the Turkish empire was unquestionably the most powerful in the world. "If you consider," says the historian Knolles, who wrote about two centuries since, "its beginning, its progress, and uninterrupted success, there is nothing in the world more admirable and strange; if the greatness and lustre thereof, nothing more magnificent and glorious; if the power and strength thereof, nothing more dreadful and dangerous; which, wondering at nothing but the beauty of itself, and drunk with the pleasant wine of perpetual felicity, holdeth all the rest of the world in scorn." Nor had this mighty power even then reached its greatest height. So-

lyman was succeeded by other able princes; and the Ottoman arms continued to maintain their ascendancy over those of Christendom, until the famous John Sobieski, king of Poland, forced them to raise the siege of Vienna, in 1683. This event marked the era of their decline. For a while they continued to oppose the Austrians and Hungarians with doubtful fortune and various success; but the victories of Prince Eugene gave a decisive superiority to the Christians. The Crescent, instead of recovering its former lustre, fell like a star plucked from its place in heaven. And the existence of the Ottoman empire for the last sixty or seventy years has depended, not on its own strength, but on the mutual animosities and jealousies of the different European powers.

When considered with attention, it does not seem difficult to discover the causes of these apparently anomalous and inexplicable results. The Turks, like their Tartar ancestors, are naturally a brave, patient, and hardy race. After their emigration from Scythia, they were long exposed to the greatest difficulties and privations. Pressed on all sides by the Mongols, Turkmans, Saracens, and Greeks, they could not maintain their footing in Asia Minor without waging incessant hostilities with their neighbours. They were thus early inured to habits of pillage and blood. And, after they embraced the Mahometan faith, they found in the law of the prophet, not a licence only, but a command to desolate the world, and to propagate their religion and empire by violence. The peculiar tenets and leading doctrines of the Koran made a profound impression on the ferocious, ignorant, and superstitious minds of the Turks, who early became the most zealous apostles of a religion of which implicit faith and unconquerable energy are the vital principles. Their fanaticism knew no bounds. They literally believed that the sword was the key of heaven and hell, and that to fall fighting in defence of the true faith, was the most glorious of deaths, and was followed by the largest portion of eternal felicity. Firm and unshaken believers in the doctrine of predestination, assured that no caution could avert, and no dangers accelerate their inevitable destiny, they met their enemies without fear or apprehension. All their animal and intellectual energies were thus made to converge, as it were, to a single point, and produced the most astonishing exertions. Tribute, slavery, and death, to unbelievers were the glad tidings of the Arabian prophet; and have been loudly proclaimed by his followers over half of the Old World. The Ottomans did not, like the Crusaders, require an impulse from pontiffs or preachers to stimulate them to engage in the great work of conquest and conversion; the precept was in their law, the principle in their hearts, and the assurance of success in their swords!

To such desperate energies, wielded by a succession of sultans distinguished for various and consummate ability, the Greeks had nothing to oppose but dispirited troops, and generals destitute alike of courage and capacity. From the age of Justinian the Eastern empire had been gradually sinking. The emperors were alternately prodigal and avaricious, cruel, profligate, and imbecile. The people were a prey to all the evils of civil and ecclesiastical tyranny. Their bodies were emaciated by fasting; and their intellectual powers dissipated in theological controversies, alike futile and unintelligible. The total defeat of Bajazet, the great-

of troops to assist the eastern emperor, Cantacuzenus, against the Ser-
vians.—P.

^c His History of the Turks was published, 1610.—P.

^a Book XXIX.

^b The Turks did not gain a stable footing in Europe till the capture of Gallipoli, about the year 1353. They had previously, however, overrun and plundered the shores of Greece and Thrace, and had even sent a body

grandson of Othman, afforded an opportunity which, had it been rightly improved, might have enabled the Greeks to expel the Turks from Europe. But the Greeks were totally incapable of profiting either by this or any other event; and the schism of the west, and the factions and wars of France, England, and Germany, deprived them of all foreign assistance, and enabled the Turks to repair their shattered fortunes, and again to become the terror and scourge of Christendom.

But the same cause to which the Turks principally owed their success, the intolerant bigotry and fanaticism of their religion, proved also the principal cause of their decline. It isolated them from the rest of Europe, and taught them to look down with contempt and aversion on the arts, sciences, and attainments of the infidel world.—“There is,” said they, “but one law, and that law forbids all communication with infidels.” The more the surrounding nations have distinguished themselves by their advances in civilization and literature, the more determined have the mass of the Turkish people become to resist their example, to keep within the pale of their own faith, and to despise their progress. The fiery and impetuous zeal by which they were distinguished in the fourteenth and fifteenth centuries has long since subsided; but had it continued to burn with undiminished force, it could no longer have rendered them really formidable. The invention of gunpowder, and the various improvements that have been made in the modern art of war, have opposed an invincible obstacle to the success of multitudes without discipline, and of courage without skill. That fanatical fervour, that contempt of danger, and that superiority of numbers and bodily strength, which formerly gave so decided a superiority to the Ottoman troops, could not enable them to contend with the science, the cool deliberate courage, the artillery, and tactics of the troops of Austria, or of Russia. The Turks have degenerated both in their civil and military institutions; but their present weakness is to be ascribed more to their not keeping pace with the progress of their neighbours, than to their positive decline. Haughty, confiding, and illiterate, they have experienced all the fatal consequences of ignorance without once suspecting its cause. Resolved to employ no other means than force, they sunk into despondency when force could no longer avail; and having now almost abandoned the hope of recovery, they present to their own astonishment and the mockery of Europe, the *umbra magni nominis*—the mighty shadow of unreal power:—“We effected our conquests,” said the Mufti to the Baron de Tott, “without any aid from European tactics, and we do not now stand in need of them—Our defeats are not the effects of human force; they are the chastisement of our crimes; the decree of heaven has reached us, and nothing can avert the wrath of Omnipotence!”

The unmitigated despotism of the Sultans has been another cause of the rapid decline of the Turkish power. The Sultan is at the head of both church and state. He is universally regarded as the vicegerent of God, or rather of the Prophet; and the most unresisting and passive obedience to his word is inculcated as a primary religious duty. For a while the extraordinary exaltation of the power of the Sultan was productive of no bad effects. The perilous circumstances under which the Turks were originally placed, and the difficulties and dangers with which they had to struggle,

obliged their chiefs to exert all their faculties. Having to rule over bold and fanatical subjects—to act as their generals in war, and their legislators in peace—it was necessary for them to practise the military and the peaceful virtues; to inspire confidence by superior knowledge and resolution; attachment by kindly conduct; respect by dignity; emulation by discernment in the bestowing of rewards; and discipline and good order by a steady adherence to one uniform system. We do not say that nothing is to be ascribed to the personal character of the sovereign; but if we reflect, that except in a single instance, a period of *nine* reigns, and of two hundred and sixty-four years, is occupied from the elevation of Othman to that of Solyman, by a series of warlike and able princes,^a it must be allowed that something more than chance, that the necessities of the times had produced this long line of able monarchs. No sooner, however, had the tide of Turkish conquest been stopped by the determined resistance of the Hungarians and Germans, and the administration of the provinces been reduced by Solyman into a defined and regular system, no sooner, in short, had the demand for great princes ceased, than the Ottoman monarchs sunk below the level of mediocrity. Instead of being educated in the council or the field, the heirs of royalty and of almost omnipotent power, were brought up in the slothful luxury of the palace. Shut up constantly in their Seraglios, ignorant of public affairs, benumbed by indolence, depraved by the flattery of women, eunuchs, and slaves, their minds contracted with their enjoyments, their inclinations were vitiated by their habits, and their government grew as vicious, as corrupt, and as worthless as themselves. When the Sultans held the reins of government in their own hands, their personal wishes led them to take a warm interest in the prosperity of their empire; but the moment they intrusted them to mercenary slaves, they separated their own from the public interests. In the first instance, the Sultans, guided by the necessity of affairs, employed only men of ability and experience, and the administration, even in the lowest departments, partook of the care and energy of the sovereign; but in the last, influenced by those mean and often base and unworthy affections which accompany human nature on a throne as well as in a cottage, they committed the administration to favourites without merit or experience; and the incapacity of the first mover pervaded and paralysed the whole state machine.^b

The vast extension of the Turkish empire was another cause of its decline. It multiplied the enemies, not the subjects of the state. To animate all the various and discordant classes of people comprehended in its widely extended limits with the same spirit, and to give them one common interest, would have required an intimate acquaintance with the science of government, and the adoption of a liberal and enlarged system of policy. But to act in this manner was utterly repugnant to the maxims of the Ottoman legislators. Submission to their power averted the stroke of death, but nothing short of embracing the religion of the Prophet could save the vanquished from extortion and slavery. “The conquered people,” says Mr. Thornton, “if they obstinately refused the offer of conversion, became, together with their possessions, their industry, and their children, virtually the property of their masters. *Their substance, says the law, is as our substance, their eye as our eye, their life as our life.* In such a state of subjection, their claim to justice and protec-

^a Gibbon, vol. XII. p. 57.

^b Volney's Considerations on the War with the Turks.

tion was little better than an empty sound, and their lives and fortunes were made subservient to the necessities of the state, and the interests of the superior and privileged class, who strove by every means, however rigorous and insulting to their feelings, to suppress instead of exciting their energies, to debilitate their minds to the level of slavery, and to insure their submission to the forms of government established by themselves."^a

"All the officers of government," says the same accurate and well-informed writer, "owe their appointment to the sole favour of the Sultan, without respect to birth, talents, services, or experience. They are deposed or punished without the liberty of complaint or remonstrance; and at their death, the Sultan inherits their property. Such is the constitution of arbitrary power; but the immediate appointment must necessarily be confined within the narrow circle of his personal acquaintance, which scarcely extends beyond the limits of the palace; the nomination to offices is consequently delegated to his ministers and favourites. It is a fact, of public notoriety, that governments of every description are openly sold at the Porte; they are held for the term of one year only, and at the ensuing *bairam*, the leases must be renewed or transferred to a less parsimonious competitor. In the public registers, the precise value of every important post under government is recorded; and the regular remittance of the taxes and tribute is the only acknowledged criterion of upright administration. If the stipulated revenue duly enters into the coffers of government, no inquiry is made whether it has been collected by harsh or by lenient measures,—whether it has been extorted by tyranny and oppression from a wretched and diminished population, or willingly contributed from the superabundance of private wealth, as an homage to virtuous administration. When the inhabitants of a city or province are dissatisfied with the Pacha, they present their complaints in a petition at the Porte; but unless they accompany it with a larger sum than the Pacha finds it convenient to give for his appointment, they seldom succeed in their application for his removal. Contestations of this public nature, as well as those between private individuals, are determined, not by the evidence of facts, or the force of argument, but by the *specific quantity of gold which either party can produce in the support of his cause.*"^b

When a Pacha thinks he can establish his independence by his wealth or his troops, he rebels,—that is, he sends no remittances to the Porte; and if the Sultan cannot subdue him by force, a sort of contest in cunning takes place between them,—the Sultan trying to assassinate the Pacha, the latter, to destroy the assassin. It is not uncommon for the Sultan to send an executioner with orders, that, in the event of his not being able to effect the destruction of the Pacha, he should load him with additional honours! By these means, suspicion is not unfrequently lulled asleep; and the Pacha is rendered an easier prey to that inextinguishable thirst for revenge which can never be appeased, except by the blood of those who have presumed to contemn the authority of the vicegerent of the Prophet.

^a Present State of Turkey, vol. II. p. 60. ^b Ibid., pp. 162 and 185.

^c Robertson's Charles V. vol. I. p. 475.

^d This savage and ungovernable body having been destroyed, the strength of the government has been increased, and the quiet of the capital in a great measure secured. Fires of the most destructive kind, were almost constant occurrences at Constantinople; now they are as rare as in almost any other European city, although the houses are generally built of wood, and the police as yet recent and imperfect. Robberies are less frequent, and strangers, as well as the Christian population, unmolested, notwithstanding

The licentiousness and want of discipline that prevails amongst the soldiery, is another cause of the low state of the Turkish power. The Janizaries, from their great services and reputation, their peculiar privileges, their being constantly near the person of the sovereign, and their union under one commander, were early inspired with high notions of their own importance; and from their station in the capital, during the intervals of foreign war, they acquired a preponderating influence in domestic affairs. Their insolence and pretensions occasioned considerable uneasiness to the ablest Sultans, during the zenith of their power; and sagacious observers had then remarked, that it was most probable, should the empire fall into feebler hands, that the Janizaries would perform the same part at Constantinople that the Pretorian bands had done at Rome.^c This conjecture has been to a considerable extent verified. The disorders among the Janizaries have increased according as the ancient strictness and severity of their discipline has been relaxed; and they have repeatedly insulted the majesty of the throne, and even imbrued their hands in the blood of their monarchs.^d

The Sultans seem to have been aware, for a considerable period, that the inferiority of their troops to those of the European nations with whom they have had to contend, has resulted chiefly from the inferiority of their tactics, and the laxity of their discipline; and several vigorous efforts have been made to introduce the warlike system of the Europeans, and to reform or abolish the Janizaries.—But difficulties, that seem to be insuperable, oppose all such projects. The Turkish government is founded entirely on the principles and dogmas of the Mahometan religion. It contains within itself no principle of improvement; and cannot be easily accommodated to any species of reform. The Sultan, and some of the principal officers of his court, may become sensible of the necessity of changing the organization and discipline of the army, and of reforming some of the abuses that paralyse all the energies of government; but their efforts to accomplish such objects can hardly fail to appear to the great majority of their subjects as unhallowed attempts to subvert principles established by ancient usage, in conformity with the unalterable precepts of the Koran; and it is difficult to suppose how, under such circumstances, they can be successful. We therefore have very little expectation that the attempts of the present Sultan to remodel the military force of the empire will have any better fate than those of his predecessors, Mustapha, Selim, &c., who paid with their lives the forfeit of their rashness, in presuming to interfere with institutions sanctioned by the will of the Prophet! We are not in possession of any accounts that can be relied on concerning the events that have lately taken place relative to the suppression of the Janizaries.^e But with such a mass of deep-rooted religious prejudices to encounter, we should be sanguine indeed, if we supposed that any considerable reform could take place, without the intervention of such a revolution as would change the whole constitution, and perhaps even the religion of the empire. So long as the Turkish government continues to exist on its present footing, so long will the Pachas continue, as they have hitherto done, to pillage and

the excitement which must have inevitably arisen from the war in which the Turks are now engaged with Russia, and the interference of the Christian powers with those they consider their rebellious subjects. These facts speak much in favour of the energy and enlightened views of Mahomet.—P.

^e The Janizaries have been completely suppressed, and the European discipline introduced into the Turkish armies with a very considerable degree of success, at least in organizing and training the troops; although the late victory over the Grand Vizier would seem to show that it had not secured the same advantage in the field.—P.

waste the provinces. The Sultan will in his turn strangle and then plunder the Pachas. The Turks will be exclusively actuated by pride and fanaticism, their vassals by hatred and revenge. Their generals will oppose brute force to science and military skill; and every abuse will be aggravated until this incoherent fabric of despotism and superstition fall a sacrifice to intestine commotion or foreign aggression.

TABLE.

The divisions of European Turkey according to Hadgi-Khalfa and Hisar-Fenn, compared with those of Ricaut and Marsigli.

A. IMMEDIATE PROVINCES.

I. Ejalet Roum-Ili. (Country of the Romans.)^a

<i>Sangiacs.</i> ^b	<i>Corresponding Divisions.</i>	<i>Names of Towns.</i>
Istanbul and Edrineh, Thrace or Romania, capitals. ^c		Istanbul (Constantinople.) Edrineh (Adrianople.)
1. Wisa.	Idem, eastern part.	Wisa.
2. Kirkkilissa.	Idem, id.	Kirkkilissa.
3. Silistra.	Bulgaria, Dobrudscha, &c.	Borgas. Silistra. Brailow. Schumla.
4. Nicopoli.	Central Bulgaria.	Nicopoli. Rustschuk. Giurgewo.
5. Widin.	Western Bulgaria.	Widin.
6. Sofia.	South of Bulgaria and Western Thrace.	Sofia. Filibe (Philippopolis.) Eski-Sagra. Nischa (Nissa.)
7. Tschirmen.	Thrace, northern part.	Tschirmen. Ieni-Sagra.
8. Kostendil.	Macedonia, northeast.	Kostendil. Ostromdscha. Vrana.
9. Uskub.	Idem, northwest.	Uskub.
10. Salonik.	Idem, centre. ^d	Salonik. Karafertia. Vodina.
11. Tirhala.	Thessaly.	Sirus (Serés.) Tirhala. Ienischer (Larissa.)

^a The vizier, pacha, and beylerbey of Romelia, who enjoys the title of Roumily-Valley, or lieutenant of the Sultan in Romelia, holds commonly his court at Sophia. He has lately chosen Monastir or Bitolia for his headquarters against the Greeks. Schumla has been selected for the same purpose against the northern powers. He may fix his residence in any part of his dominions.

^b Sandjak or Sangiac, means literally a banner. The office of pacha is not limited by special functions; hence the uncertainty of the limits of the pachaliks, which vary according to their military force.

^c Places of administration without any other sangiac or banner than that of the Sultan.

^d The districts of Monastir or Bitolia, Kesrieh (Castorca,) Servidche, Ostrova, and some others, included in the Sangiacat or government of Salonik and Ochri, are dependencies of the sangiac of the Captain Pacha.* It is impossible to reconcile the accounts of the Turkish geographers with the existence of the sandjack of Roumily Valley.

* Capitan or Capudan Pacha.

^e The Sandjac of Karli-Ili (Acarmania,) although marked by Hadgi-Khalfa, appears to have been abolished.

^f Muchtar, son of Ali-Pacha, although only bey of Musachi, a district in which Berat is the chief town, obtained the title of Beylerbey, and ruled over the whole sangiacat. Ibrahim, his father-in-law, was prisoner in the hands of Ali; but the systems of the Turkish geographers need not be changed on account of these temporary usurpations.

12. Janina. ^e	Epirus.	Janina. Narda (Arta.)
13. Delonia.	Epirus.	Delonia (Delvino.)
14. Aulona. ^f	Idem, and part of central Albania.	Aulona. Tebelen. Berat (Arnaouth-Belgrad.)
15. Ochrida.	Inland Macedonia.	Ochrida. Mat. Alescho. ^g
16. Ilbessan.	Central Albania.	Ilbessan. Duradsch.
17. Iskenderie.	Upper Albania.	Iskenderie (Scutari, Scodra.) Olgun (Dulcigno.) Bar (Antivari.)
18. Dukagin.	Upper Albania.	Dukagin. Ipak (Pekia.) ^h
19. Perserin.	Idem.	Perserin (Prisrendi.)
20. Veldschterin.	Upper Servia, west.	Veldschterin. Pristina. Nova Berda.
21. Aladschahissar.	Idem, east.	Aladscha-Hissar Orkub.
22. Semendra.	Lower Servia.	Belgrade. Semendra. Ussitza.
II. Ejalet Bosna. (Country of Bosnia.)		
23. Banyaluka.	Turkish Croatia.	Banyaluka. Bosna-Sarai.
24. Trawnik.	Central Bosnia.	Trawnik.
25. Srebernik.	Western Bosnia.	Srebernik.
26. Iswornik.	Bosnia, northeast.	Iswornik (Zwornik.)
27. Ienibazar.	Rascia.	Ienibazar (Novi-Bazar.)
28. Hersek.	Turkish Dalmatia.	Mostar. Trebigni. ⁱ
III. Ejalet Morah. (Country of the Morea.)^k		
29. Tripolitza.	Peloponnesus, centre, north and east.	Tripolitza. Anaboli (Napoli di Romania.) Badradjik (Patras.)
30. Mistra.	Laconia and Messenia.	Misitra. Korun. Mengesche (Monembasia, Napoli di Malvasia.)
IV. Ejalet Dschesair. (Country of the Islands and Coasts.)		
31. Galiboli.	Southern Thrace.	Galiboli (Gallipoli.) Rodostchik (Rodostus.)
32. Egribos.	Eubœa, Beotia, Phocis, &c.	Egribos.

^g The district of the Mirdites is in reality a dependence of Ochrida and not of Ilbessan or Elbassan; but so long as Ali lived, he obtained troops from the district.

^h The northern limits of these governments are not known.

ⁱ It is very difficult to fix the limits of the governments or *sangiacats* in Bosnia. Hadgi-Khalfa mentions besides, Klis and Kirka, but these include Austrian Dalmatia. The Sangiacs are pachas in *partibus infidelium*. The beylerbey of Bosnia retains the title of Beylerbey of Buda in Hungary.

M. Desfossés marks the divisions, or rather classifies the functionaries in the following manner: 1st, the beylerbey residing at Trawnik; 2d and 3d, two pachas residing near him, but who are not attached to any particular sangiacat; 4th, 5th, 6th, and 7th, the pachas commanding the sangiacats of Banyaluka, Srebernitza, Jeni-Bazar, and Trebigni (Hersek); the last four appointments are at the disposal of the beylerbey; 8th and 9th, the pachas nominated by the Porte over the sangiacat of Posavina or Iswornik and that of Klissa, now transferred to Scopia. If Desfossés be compared with Hadgi-Khalfa, it will be found that they agree as to the number of sangiacs, with the exception of two, those over Trawnik and Kirka, but probably the two pachas residing at Trawnik may claim the rank without holding the title of sangiacs. The geographical divisions depend on the number of sangiacs.

^k See below the divisions according to M. Pouqueville.

- 33. Ainabacht. Western Hellas. Isdin (Zeitun.)
Istifa (Thebes.)
Atina.^a
Ainabacht (Lepanto.)
Missolunghi.
- 34. Midillii. Mitylene, &c. Midillii (Castro.)
a. Il Midillii. Lesbos or Mitylene.
b. Muskonisi Hecalonesi.
(group.)
c. Taschos. Thasos. Same name.
d. Samadrek. Samothrace. Idem.
e. Imrus. Imbros. Idem.
f. Lymie. Lemnos. Lemno.
g. Skopelo. Skopelos. Same name.
h. Schkiri. Scyros. Idem.
35. Andra. Northern Cyclades. Idem.
a. Andra. Andros. Arna.
b. Istendil. Tenos (Tino.) St. Nicolo.
c. Mykoni. Mycone.^b Same name.
d. Ilegi. Delos. Asprana.
e. Syra. Same name.^c Same name.
f. Thermia. Same name.^d
g. Morted. Ceos or Zia.
h. Djamlidsi. Hydrea. Zia.
36. Nakscha. Southern Cyclades. Hydra.
a. Nakscha. Naxos. Nakscha.
b. Bara. Paros. Parichia.
c. Amorgo. Amorgos. Amorgo.
d. Istampolie. Astypalaea. P. St. Andrew.
e. Nanfi. Namphi.^e
f. Dgirmenlik. Santorini.^f
Megalos-Chorio.
Pyrgos.
Nio.
g. Nio. Ios.
h. Sikino. Sicinus.
i. Polikandro. Polycandros.^g
k. Milo. Melos. Milo.
l. Kimoli. Cimolus. Argentiera (Frank.)
m. Siphno. Siphnus.
n. Serf. Seriphus.

V. Ejalet Kirid or Kandia. (Country of Crete.)

- 37. Kandia. The centre and east. Kandia.
Setia.
Sphakia.
- 38. Retimo. The west. Retimo.
- 39. Kanea. Idem. Canea.
Sudi.
Kissamo.

B. MEDIATE PROVINCES.

- I. Walachia. Subdivisions into *Zimutz*. Towns. (Walachian names.)
 - a. Great Walachia.
 - 1. Zara of Schoss. (Lowland.)
 - Iliowul. Bakarescht.
 - Ialomitza. Slobosja.
 - Slam-Rimnik. Fokschani.
 - Busco. Busco.
 - Sekuriani. Waleni.
 - Braowa. Ployest.
 - Dumbowitza. Tirgowist.
 - Wlascha.
 - 2. Zara of Suss. (Highland.)
 - Teleorman. Ruschy of Wede.
 - Mustschiel. Kimpolung.
 - Ardschisch. Kurte of Ardschisch.^b
 - Oltul. Slatina.
 - b. Little Walachia.
 - Dolschi, or Schiul of Schoss.¹ Krayowa.
 - Romunazi. Islas.
 - Wultscha. Rinnik.
 - Gorzy, or Schiul of Suss.¹
 - Mchedinz.

- II. Moldavia.
 - 1. Zara of Schoss.
 - Jassy. Same name.
 - Karligaturi. Tirgul-Formos.
 - Roman. Same name.
 - Waslui. Idem.
 - Falschi. Idem.
 - Kohuslui. Galatch.
 - Tekutsch. Same name.
 - Putna.
 - Tutow.
 - 2. Zara of Suss.
 - Dorohoe. Same name.
 - Botoschani. Idem.
 - Harlew. Idem.
 - Niamts. Idem.
 - Bakæu. Idem.

CHRISTIAN KINGDOMS OF BOSNIA AND SERVIA. DIVISIONS

Kingdom of Serbia, in the eleventh century.

- 1. Serbia Proper, along the Danube. Dutchy of Mazovia, in 1271.
- 2. Romania, or Eastern Serbia.
- 3. Rascia.
- 4. Dioclea. } County of Chelm or Zachlunia, in the thirteenth century.
- 5. Terbunia. } Dutchy of St. Saba, in the fifteenth century.
- 6. Zachlunia. } Hertzegovina, or in Turkish, Hersek.
- 7. A small part of Dalmatia.

Kingdom of Bosnia, thirteenth century.

A. BOSNIA PROPER.

- 1. Province of Czernik.
- 2. ———— Modritza. } Sangiac of Banyaluka.
- 3. ———— Ussora. }
- 4. ———— Krakowo. }
- 5. ———— Upper Sala. } Sangiac of Bosna Serai (Trawnik,) and Srebernik.
- 6. ———— Lower Sala. }
- 7. ———— Varosch. }
- 8. ———— Posavina. } Sangiac of Zwornik.
- 9. ———— Suitava. }
- 10. ———— Podrina. } On the southeast of Bosna-Serai.

B. UPPER BOSNIA, CALLED IN 1103, THE KINGDOM OF RAMA.

- 1. Seigniory of Chulm (Zachlunia Proper. See above.)
- 2. ———— Banno?
- 3. ———— Clinovo (Captaincy of Hliuno or Livno, Hertzegovina.)
- 4. ———— Cettina (in Austrian Dalmatia.)
- 5. ———— Gliubuski (Captaincy of Laubouchka, in Hertzegovina.)
- 6. ———— Nevesik (Captaincy of Nevesign, Idem.)
- 7. ———— Narentva (Mostar.)
- 8. ———— Verbosania
- 9. ———— Gliubina?
- 10. ———— Rudina?
- 11. ———— Trebigna (Terbunia, see above. Captaincy of the same name.)

Table of the Divisions of the Morea, according to M. Pouqueville.^k

Ancient Divisions.	Modern Districts.	Number of Villages.	Value of Agricultural produce in 1814.
Corinthia, Sicyonia, Epidauria, &c.	Corinth.	111	2,725,000
Western Argolis,	Argos.	23	1,519,000
Eastern Argolis, Trezenia, Hermionis,	Naupli.	33	1,230,000
	carried over,	167	5,474,000

^a Athens was a fief attached to the office of chief of the eunuchs, but under the military protection of the sangiac of Egribos.

^b Myconos. ^c Syros. ^d Cythnus. ^e Anaphe. ^f Thera.

^g Pholegandrus.—D'Anville. ^h Court of Ardschisch.

ⁱ Dolschi and Gorzy are evidently Slavonic words; the first is derived

from *dol*, a valley; the second from *gora*, a mountain. *Suss* in Walachian corresponds with the *sursum* of the Latins. *Schoss* (*sub*) is a root common to the Walachian, Slavonic (*schood*) and Gothic.

^k Tome III. p. 491—494; tome V. p. 23—28, 176.

Ancient Divisions.	Modern Districts.	Number of Villages.	Value of Agricultural produce in 1814.
	Brought over,	167	Piastres. 5,474,000
Cynuria.	San Petro.	20	985,000
Central Laconia.	Misitra.	118	2,998,000
Laconia, eastern coast.	Monembasi.	54	237,000
Laconia, southwest. ^a	Country of Magna. ^b	104	1,450,000
Messenia.	Calamata.	10	1,732,500
Id.	Imlakia.	37	
Id.	Androussa.	87	1,988,500
Id.	Coron.	76	412,000
Id.	Modon.	54	393,000
Id.	Navarin.	36	302,300
Triphylia, &c.	Arcadia.	106	1,767,000
Elis.	Gastouni. ^c	114	5,793,500
Western Achaia.	Patras.	94	1,639,500
Eastern Achaia.	Vostitza.	25	1,486,000
Arcadia, north.	Calavryta.	95	
Id. east.	Tripolitza.	77	2,027,000
Id. west and centre.	Caritene.	130	2,692,900
Id. southwest.	Leonari.	18	773,600
		1422	32,201,800 ^d

Table of the Population in European Turkey, according to M. Hassel, 1823.

A. POPULATION IN EACH PROVINCE.

	German Square Miles.*	Inhabitants.	For each German Square Mile.
Roum-Ili,	4776	5,543,000	1160
Bosna,	1062	560,000 ^e	527
Morah,	402	790,000 ^f	1963
Dschesair, (European part.)	1079	907,000	840
Kirid,	188	270,000	1436
Walachia and Moldavia,	2100	1,400,000	666
	9607.	9,470,000	6592

B. DIFFERENT NATIONS.

a. Primitive Inhabitants.

Hellenes,	3,090,000
Slavonians,	1,440,090 ^h
Arnauts,	460,000 ⁱ
Walachians,	1,375,000
	6,365,090

^a M. Pouqueville compares the country of Magna with Eleuthero-Laconia, but that division comprehended all the towns of the *Periæci* (circumhabitantes,) who during the war of the Romans against the Spartans joined the former, and as a reward for their revolt, was declared independent of Sparta. These towns, twenty-four in number at the time that Augustus made them free, were situated round the sea coasts of Laconia, and not exclusively on Mount Taygetus.

^b Maina, the country of the Mainotes.

^c Lala, a village inhabited by a horde of Albanian banditti, has been taken by the Greeks; it is included in the villages of Gastouni.

^d The taxes and contributions levied in the Morea amounted to 12,808,045 piastres; of that sum four millions were set apart for the Vizier and a two-tailed pacha at Naupli.

^e The German mile varies in different countries and in different parts of the Austrian empire: it is in some places equal to four English miles, and on that supposition, the German square mile is equal to sixteen English square miles; but in other places it amounts only to $3 + \frac{1}{2}$ English miles, and the square mile is therefore equal to $11 + 1.9$ English miles.*

* The German geographical mile is 4.6 English miles; the long German mile 5.75, and the short German mile 3.89 English miles. Ed. Encyc. art. Measures.—P.

b. Foreigners.

Osmanlis or Turks,	2,350,000
Tartars,	275,000
Abadiotes,	4,000
Armenians,	85,000
Jews,	312,000
Zigeunes or Gypsies,	80,000*
Franks,	5,000
	3,111,000

C. POPULATION ACCORDING TO THE DIFFERENT RELIGIONS

Mussulmans,	2,889,000
Greek Christians,	5,880,000
Catholics,	310,000
Armenians,	85,000
Jews,	312,000

D. RESPECTIVE NUMBERS OF THE OSMANLIS AND HELLENES.

	Hellenes.	Osmanlis.
Roum,	1,640,000	1,806,000
Bosna,		157,000
Morah,	710,000	50,000
Dschesair, (European part.)	600,000	200,000
Kirid,	141,600	124,000
Walachia and Moldavia,		5,000

Table of the Ottoman armies according to M. Hammer.¹

Infantry, 100,000 men, namely,	
Ienidescheri (Janizaries,) two hundred <i>ordas</i> ,	80,000 ^m
Dgebedgis (armourers,)	6,000
Topdschis (matrosses,)	10,000
Top-Arabadschi (train of Artillery,)	3000
Koumbaradschi (bombardiers,)	600
Lagoumdschi (miners,)	400
* Nisami Dgedid, new regular troops, (lately suppressed,)	24,000 ⁿ
Regular cavalry, 24,000, namely,	
Sipahis, cavalry proper,	11,000
Silhdars, horse police (<i>gens d'armes</i> ,)	11,000
Ouloufedschiani, mercenaries,	1,000
Gouroubai, foreigners,	1,000
Irregular feudal cavalry, 100,000.	
Standing army in time of peace, 79,500.	

^f M. Lichtenstein estimates the population at more than 900,000 individuals, of whom two thirds are of Slavonic origin.

^g The Morea, since it has shaken off the yoke, has become a place of refuge for the Macedonian and Asiatic Greeks. The numbers, however, may be overrated.

^h I believe that M. Hassel and his guides have estimated the inhabitants of Bosnia and Servia too low by a half; and it is likely that the Slavonic population, (including the Walachians or Bulgaro-Slavo-Walachians of Pin-dus,) is at least equal to two millions.

ⁱ The number of Arnauts or Albanians cannot be less than 700,000.

^k The above estimate is too low by more than a third. The gypsies are thickly scattered on Mount Hæmus and Scardus.

^l M. Hammer mentions only the number of troops paid and maintained by the Porte; to his table ought to be added the forces which each pacha and several provinces support. Thus, the Vizier of Egypt, if his Negro and Arab regiments be included, has an army of 30,000 soldiers.

Servia must furnish 12,000 men. Bosnia has its provincial troops.

^m Suppressed, 1826.—P.

ⁿ Restored since the suppression of the Janizaries, and greatly increased in numbers. Most of the new levies are disciplined after the European system.—P.

^o M. Hammer, Etat de l'Empire Turc, II. p. 273.

BOOK CI.

EUROPE.

Description of Europe continued. Hungary and its appendages; physical geography, &c.

WE pass from the soil of barbarism and the crescent to a country whose inhabitants participate in the blessings of Christianity and European civilization. Different nations are united in Hungary round the ancient cross of St. Stephen,—the *Magiars*^a who came from thither on their swift horses from the banks of the Wolga,—the *Slowaks*, and their kindred nations, who descended from the Carpathian mountains or the Norican Alps,—the Germans, who advanced along the Danube, and the Walachian shepherds, from the Alps of Dacia;—all of European origin, although distinguished by their national and picturesque costumes; all Christians, although differing from each other in their rites and observances. Transylvania, although governed by independent laws, is composed of the same civil and religious elements; it cannot therefore be considered apart. Croatia and Dalmatia, it is true, belong to a different *physical region*, but in a science so much connected with history as geography, systematic arrangements must give place to common divisions, and small portions of territory must be annexed to great masses in a way best adapted to assist the memory of the reader. It is therefore necessary to include all these countries in one and the same description. The Carpathian or Krapack^b mountains, surround, on the north and east, the vast plain, which forms the principal part of Hungary, and in which the Danube appears to pause in the midst of its course. Transylvania comprehends three great vallies on the east of that plain, between the branches of the Carpathian range: Slavonia extends on the west, between the Drave and the Save. Croatia, which is still more remote, joins the extremities of the Julian Alps; and lastly, Dalmatia descends to the shores of the Adriatic. Some account shall be first given of the physical geography of these provinces.

The Carpathian range extends along a semicircular line of 200 leagues; it does not form a chain, but rather a tableland, crowned with isolated groups, intersected in many parts by small chains, and bounded on the northwest and southeast by two great masses of mountains.^c Those on the northwest are the *Carpathians Proper*, or *Crapacks*; the others on the southeast are the same as the Bastarnian or Dacian Alps. If the narrative of M. Beudant, a distinguished French geologist, be combined with the remarks of M. Kitaibel, a Hungarian botanist,^d several groups, chains,

and detached hills not unlike forelands,^e may be discovered in the first section.

The group of Tatra is more elevated than any of the rest; its summits reach to the height of 8,000 feet.^f It extends from east to west, and rises abruptly on the east above the plains of Kesmark, and the sandy mountains that separate Hungary from eastern Galicia. It is situated between the Poprad, which rises on the south, and turns suddenly to the north, the Dunajec, which takes its source on the north, and the Waag and the Arva which separate it on the south and the west from the neighbouring mountains. Two groups to the northwest of the last, form the natural limits between Hungary, Galicia, and Moravia. One of them, the *Baszkid*, rises between the rivers Arva, Waag and Kiszueza, and the sources of the Vistula; the other, or the *Iavornik*,^g passes in a southwest direction from the Kiszueza to Presburg; they are separated from each other by the defiles of Jablunka.

All the mountains abounding in mines from the Waag or Vag to the vicinity of Kaschau, are termed in Hungary the *Fatra*, but the same name is applied to the mountain of Königsberg and its continuations, and to two others, the great *Fatra* on the confines of Thurocz and Liptau, and the little *Fatra* in the country of Arva. It might be better if the districts and mountains were marked by geographical limits. A small chain extends in the direction of northeast to southwest from Predmir to Freystadt, and is enclosed by the Vag, the Nyitra, and the Thurocz. Another range parallel to the last, rises between the Nyitra and the Gran, commencing at Nyitra, and terminating at Kremnitz; it consists of three small groups, of which the *Klak* is the most remarkable. The chain, strictly termed the *Fatra*, is situated to the north of the last mentioned, between the rivers Thurocz and Revueza; it extends from Rosenberg to Neusohl. A range extending from west to east, from *Prossiva* to *Kralova-hora* in a direction parallel to the Tatra, between the Vag and the Gran, has been called the Alps of Liptau by the German inhabitants. It appears to be connected with a number of mountains between the Sajo, and the Hernat, which flows in the plains of Leutchau. A mass of mountains, that make up so great a number of small detached groups, as to render every attempt to classify them very difficult, are situated to the south, on the left of the Gran, and terminate at the banks of the Sajo, and the Ipoly, which run in contrary directions, the one to the east,

^a "Magyar, Madjar," pronounced Madjar.—P.

^b In Polish—pronounced Crapatsk.

^c Beudant, *Voyage en Hongrie*, tom. I. p. 21—26. The *carte géognostique* (geological map,) in the Atlas by the same author, is a valuable addition to the work.

^d Topographical description of Hungary, prefixed to the following work. "Comitis Waldstein, &c. et Pauli Kitaibel: M. D. Descriptiones et Icones plantarum rariorum Hungariæ, Vol. I. Viennæ, 1802."

^e "Promontories."

^f "2600 metres (1334 toises.)"

^g See the Maps of Lipsky and Lichtenstern.

the other to the west. M. Beudant mentions some of these groups. Mount *Polanaberg* is the centre of one of them; another is attached to Mount *Vepor*; a third is enclosed by the Rima, the Sajo and the easternmost part of the Gran; a fourth rises between the Hernat, the Bodva and the upper part of the Sajo; a fifth between the lower Sajo and the Bodva. It must be a hard task to recollect all these divisions, more particularly as the geologist has not thought it necessary to name one of them. The sixth of these groups, or "that of *Schemnitz*, between the Gran, the Szlatina and the Krupina," corresponds with the Szisna.^a *Ostrosky* is the centre of the seventh, between the Krupina and the Ipoly; the districts on the south of the Ipoly and the Sajo are lower, and several hills, none of which are very high, may be observed in the large vallies watered by these rivers. A small ridge on the left of the Ipoly where it bends from west to south, before it joins the Danube, terminates at the *Nagyszal*, which commands the town of Waitzen. A group, which includes the mountains of *Cserhat* and *Karancs*, is situated between the Ipoly and Zagya, and extends to the right of the Rima and the Sajo. The *Matra*, bounded by the Zagya and the Tarna, is detached from all of them, and rises suddenly to a great height above the plain. The small mountainous district between the Tarna and the Sajo, has been called *Osztra* or *Buk-Hegy*.^b

"An extensive and distinct group," says M. Beudant, "extends in the direction of north to south from Eperies to Tokay, between the Hernat, the Topla and the Bodrog, and is encompassed on every side by vast plains." We have found, by referring to the map, that the author means what might be more correctly termed a chain than a group, the *Hegy-Allya* or lower mountains, the southern sides of which produce the finest wines in Europe. *Fekete-Hegy* is the highest summit, and the hills of Tokay form the south-east extremity. A detached group, that of *Vihorlet*, rises in the plains to the north-east of the *Hegy-Allya*, in front of the sandy mountains which form the limits of eastern Galicia, and is surrounded by the *Laborceza* and the *Ungh*.

It is difficult to determine whether the Carpathian range is separated from the Transylvanian Alps, or in other words, whether Hungary is bounded on the north north-east by a low ridge above Galicia; but historical and political considerations of the highest importance depend on the solution of that problem in physical geography. If Hungary is of easy access on that side, the Goths, (particularly the Visigoths,) the Sarmatians and the Huns might have penetrated by this way, as well as by others into Europe. The Rusniacs might, in like manner, have migrated to Hungary, and the Magiar obtained an easy entrance into his new possessions. If the Carpathian mountains are so low at this point, where is the bulwark of the Austrian empire? The numerous armies of Russia cannot be confined by imaginary Alps. It may be worth while to examine the statements of two ocular and contradictory witnesses.

"The sandy hills," says M. Beudant, "which form the limits of eastern Galicia, present a sort of *talus* or regular slope from one extremity to the other, but they are frequently terminated by plateaus, more or less extensive, which descend by gradual and successive declivities, till they are confounded with the plains. The peaks and rocks that rise from the sand in different parts of the range, indicate a continuation

of the Transylvanian Alps on one side, and the heights of *Tatra* on the other. Two great masses of mountains in Hungary and Transylvania may be compared to two citadels at the entrance of an immense gulf. The hills on the northeast between them are much lower, their greatest height not being equal to half the elevation of the others; their summits are rounded, they are not difficult of ascent, and they are almost entirely composed of fine sand more or less consolidated. The opening betwixt the two masses of lofty mountains, by which the plains of Hungary might have at one time communicated with those of Poland, has thus for ages been blocked by alluvial and arenaceous deposits."^c

"The *Tatra* mountains," says M. Kitaibel, "descend rapidly on the eastern side, towards the valley by which the *Poprad* descends into Galicia. Beyond it rises a new series of mountains, of moderate altitude." The same author describes, in a different part of his work, the mountains on the northeast in the counties of *Ungh*, *Beregh*, and *Marmarosch*. "They extend eastward from the river *Latorcza*, intersect in different directions the county of *Marmarosch*, and like those in the county of *Beregh*, are little lower than the Alps. The mountains of *Bersava* or *Polonyina* tower above the rest. The traveller, who wishes to observe the connexion between the different groups, must ascend Mount *Cuttin*, which is not far from *Kapnyk-Banya*, and from its top the view is most extensive. He can observe distinctly all the mountains in *Marmarosch*, but those which mark the boundaries of Galicia and *Bukowine* appear to be still more elevated. The mountains of *Pop-Ivan*, *Farky*, *Czerna-Hora*, *Homrel*, *Qusky*, and *Pietrosa*, are as lofty as the heights of *Tatra*; but they are not so steep, nor covered with so many bare and huge rocks; they rest on a broader base, and their summits are not so sharp or pointed."^d

It is not easy to reconcile these varying testimonies. The measurement of the *Snizny-Kamen* by *Wahlenberg* is by no means a proof that the sinking is general, and the height of the *Pietrosa*, (if it be accurately measured,) tends to confirm the opposite opinion. M. Beudant, in his zeal to correct the errors of geographers, may have fallen into others of a different kind, and the depression of the Carpathian ridge does not appear to extend beyond the counties of *Saros* and *Zemplin*; it rises to the east of those districts, and although perhaps less elevated than the *Tatra* range, forms an uninterrupted continuation of the Transylvanian Alps.

The mountains in Transylvania consist of well-marked chains, besides different groups that cannot be so easily defined. A great mass of mountains is situated at the eastern extremity, and from them the *Maros*, the *Kukullo*, the *Aluta*, the *Szamos*, the *Moldavian Bisztritz* and the *Moldava* derive their source. The elevation of the mass is not, however, proportionate to its breadth. A chain is detached from the northwestern part of the great mass, in that part of the country where the frontiers of Hungary, Transylvania and *Bukowine* meet, and extends westward by *Kapnik*, between the eastern *Szamos* and the *Theiss*; it contains several lofty summits, and among others that of *Rosaly*. Another and a greater chain, divided by the *Aluta*, bounds Transylvania and *Walachia*. The highest mountains^e are perhaps situated in this range; they have not however as yet been measured with sufficient accuracy: the western extremity of this chain, or the mountains of the *Bannat*, are ap-

^a Hassel, *Volst. Handbuch*, vol. II. p. 492.

^b *Buk*, a beech, and *hegy*, a hill or mountain.

^c Beudant, *Voyage en Hongrie*, p. 31, 23.

^d "Their summits terminate in a convex peak" i.e. they are rounded.—P.

^e Kitaibel, p. 4—8

^f "The *Butsch*."

parently connected by rocks, which impede the course of the Danube, to the mountains in Servia.

Such are the summits that form an irregular curve on the eastern and southern frontiers of Transylvania; the central districts are lower; almost all the rocks in that part of the country are arenaceous, and rich in salt mines; the rivers that descend from them roll fragments of gold. These districts form a table-land, intersected by several small chains; it is elevated to a considerable height above Lower Hungary, and rises on the west in two mountainous ranges. The first is situated between the western branch of the Szamos, and the sources of the Kraszna, the Bereltyo, and the Rapid Kœrcœs;^a it includes the *Bihary-Hegy*, the *Czaf*, the *Vaskho*, and many other distinct groups. The second extends between the Maros on the south, and the Aranyos on the north; the White Kœrcœs rises from it; the principal mountains are the *Gaina*, and the *Kladowa*, and it terminates at the *Villagos*. The country that separates Transylvania and Lower Hungary is imperfectly known, but Kitaibel compares it to the Carpathian districts.

Two branches of the Stirian Alps penetrate into Hungary on the west; the one in the direction from southwest to northeast comprehends the *Bakony* mountains on the north of Lake Balaton, and ends at Mount *Pilicz* near Gran; the other follows the course of the Drave towards the southeast, is almost lost in the plain of Slavonia, and rises in Syrmia, where it forms the picturesque hills of Fruska-Gora.

The Julian Alps commence in Carniola, and extend between Croatia and Hungarian Dalmatia, towards Venetian Dalmatia, where they join the Albano-Dalmatian chain, a branch of Mount Hæmus.

Hungary contains two of the greatest plains in Europe; the one about forty leagues in length, and twenty-five in breadth, includes that part of western Hungary, bounded by the Austrian mountains on the west, those in the county of Nertia on the north, and the Bakony on the southeast; the other about a hundred and twenty leagues long, and eighty broad, forms lower Hungary, physically considered, and a great part of it is a saline and sandy desert, limited towards the Danube and the Theiss by immense marshes. The level of the low plain is supposed to be not more than 140 feet^b above that of the sea, and that of the other only 31 feet^c higher, but it rises almost imperceptibly towards the high countries which surround it, and is not subject like the former to oppressive and scorching heat. The greater plain may be compared to an African region; the eye is fatigued by a vast and unvarying horizon; the mirage produced by a burning sun mocks with its phantastic illusions the traveller, who is sometimes enveloped in total darkness by dense and noxious mists;—he may hear the lowing of cattle, grope for the hut of a shepherd, or wander among reeds and marshes.

The largest lakes in Hungary are the Balaton,^d and the lake of Neusiedel.^e The first is situated between the counties of Szala and Sümegh; its greatest extent is about 48 miles from southwest to northeast, and its greatest breadth

^a Germ. *Schnelle Korosch*, swift or rapid Koros.

^b "110 metres," 360.8 feet.—P. ^c "10 metres," 32.8 feet.—P.

^d The Hungarian name is *Balaton-Tava*, the German, *Platten-See*.

^e *Fertő-Tava* in Hungarian.

^f i. e. reckoning the German square mile at 16 English—"66 $\frac{1}{10}$ sq. leagues."—(M.B.)—P.

^g "It is about 8 leagues and a half in length from north to south, and about 2 leagues and a half in breadth at its two extremities, but it is nar-

rower in the middle, where it is about a league and a half broad."—These dimensions reduced to miles, are as follows, viz.: length, 25 $\frac{1}{2}$ marine miles, or 29 $\frac{1}{2}$ statute miles; breadth at the extremities, 7 $\frac{1}{2}$ marine or 8 $\frac{1}{2}$ statute miles; at the middle, 4 $\frac{1}{2}$ marine or 5 statute miles—(30 miles long and 10 broad.—*Morse*.)—P.

about nine miles, but in many places it is much narrower, and in some not more than two; it is almost blocked up near its northeastern extremity by a hilly peninsula which stretches out to the distance of a league beyond its banks. The surface of the Balaton and the surrounding marshes is not less than 24 German square miles, or 384 English square miles;^f its principal feeder is the Szala, but all the water it receives appears inconsiderable relatively to its superficial extent, and the quantity lost in evaporation. Thus there is no proper outlet for the lake, for the Sio, which seems to issue from it, and enters the Danube, is in reality a marsh communicating with it on the southern side, nor does it become a river until it receives the streams from the eastern mountains in the district of Sümegh.

The lake of Neusiedel lies between the counties of Ademburg and Wieselburg; it is about seventeen miles and a half in length from north to south, and although very narrow at the centre, it is more than seven in breadth near the two extremities;^g it is contiguous on the south to large marshes that extend eastwards, and after being increased by many streams, flow into the Raab. The evaporation at the surface of the lake and the marshes is perhaps nearly equal to the additions which they gain from different streams; at all events, the Raab is not so great a river as might be supposed from the number of its feeders. The water in the lake is medicinal, and contains in solution sulphate of soda.

The lake of Neusiedel is not the same as the Peiso of Pliny, the Pelso of Aurelius Victor, and the Pelsodis of Jordanes, in Pannonia Prima. The Emperor Galerius, it is said, partially drained the Peiso, and obtained, by cutting a canal between it and the Danube, a considerable tract of fertile land. No lake occupying the same position as that of Neusiedel is to be found in the table of Peutinger, in the itineraries, or in any ancient geographical work. A river called *Ferto* is mentioned in a document of the year 1339, and in another document notice is taken of certain villages in the land now covered by the lake. It is not unlikely from these facts, and others of the same kind, that it began to be formed in the tenth or eleventh century by the sinking of the ground and the consequent stagnation of the river, which was thus deprived of its outlet.^h The land in the neighbourhood of the lake of Neusiedel sunk in 1725, and it has been affirmed that the water was not so salt or brackish before that time; it appeared in a state of ebullition after an earthquake in 1763.ⁱ If the above hypothesis be correct, the site of the Pelso must be sought in a different part of the country. It has been stated by some writers that the traces of it may still be discovered between St. George and Landsitz; others, and their opinion is at least more probable, consider it the same as the Balaton, of which not more than a very small portion has been drained, but the marks of ancient and modern labour are still discernible; besides, it cannot be supposed that the ancients were ignorant of so great a lake, neither can it be confounded with the *Ulkea* of Dion Cassius, the *Hiulkas* of Zozimus, which occupies a different position.^k

It is not easy to distinguish the other lakes from the

^h Bredetzky, *Beiträge zur Topographie*, &c. Vol. III. Art. II.

ⁱ Busching, *Erdbeschreibung*, II. p. 360.

^k Mannert, *Geographie des Grecs et des Romains*. Germania, p. 664.

marshes that surround them; such is the lake of Palics near Theresienstadt; "its depth is not less than 18 feet,^a and its bottom is covered with a hard and solid layer of alkaline salt." Many others in the midst of the plain, although marked on the maps, are only morasses; the most of them are dry in summer.

Although the word for sea in Hungarian is of Turkish importation, the language abounds in vocables that denote the different kinds of marshes; if the surface of any is covered with the floating bed of aquatic plants, it is termed a *lap*, and those of which the lulent soil is favourable to the growth of rushes and reeds are called *motsars*.^b

The marshes in Hungary are very large; the most extensive are situated near the middle of the great plain, on the banks of the Theiss and the Danube, and in the wide valleys watered by the Save and the Drave. Baron Von Lichtenstein considers the country rendered useless by the marshes not less than 300 square leagues, or 108 German square miles,^c or 1,732,800 English acres;^d his calculation, it has been since ascertained, is incorrect; the superficial extent is greater. Besides, as the banks of several rivers are very low, many parts of the plains are covered after inundations with stagnant water. The more enlightened inhabitants are anxious to diminish the number of marshes; it might be the means of obtaining not only an immense accession of rich land, but of protecting them against the noxious miasmas so common in many districts where scurvy and intermittent fevers are prevailing diseases. The country subject to these malignant influences is not less than 300 square leagues, but more than 15,000 square leagues, or 135,000 square miles, remain in the Hungarian states, where the climate is as salubrious as that of Germany or France.^e

The Danube,^f the second river in Europe, passes into Hungary at the town of Deven, immediately after it is joined on the left by the March or Morava; it is crowded with islands below Presburg, and soon divides itself into three principal branches, of which the greatest flows in an east southeast direction; the second and third form two large islands, and the second having received from the south the waters of the Laita and the Raab, unites with the first below the town of Raab; the third, increased by the streams of the Waag, falls into the main channel at Komorn. More than a hundred eddies have been counted on the Vag or Waag within the distance of thirty-six miles. The Danube flows eastwards from the town of Raab, receives on the left the waters of the Gran and the Ipoly, and becomes narrower as it approaches the mountains between which it passes below Esztergom; after making several sinuations among the rocks, it reaches the town of Vartz, where it turns abruptly towards the south, and waters the base of the hills of St. Andrew and Buda. Its declivity from Ingolstadt to Buda is not more than eight feet; the sudden change in its direction is determined by the position of the hills connected with Mount Czerath, and by the level of the great plain.^g The river expands anew in its course through the Hungarian plains, forms large islands, and passes through a country of which the inclination is not more than twenty inches in the league. Its banks are covered with marshes,

particularly in the southern part of Pest, and in the districts of Baes and Tolna towards the confluence of the Drave. It extends in a southern direction to the frontiers of Slavonia, where the first hills in the *Fruska-Gora* retard its junction with the Save; it then resumes its eastern course, winds round the heights, turns to the southeast, receives first the Theiss, then the Save at Belgrade, and the Temes at Pantsova, and at last flows with great rapidity at the base of the Servian mountains. Its bed is again contracted; its impetuous billows crowd on each other, and escape by a narrow and deep channel, which they appear to have formed between the heights in Servia and the Bannat. It issues from the Hungarian states at New Orsova; and, having crossed the barriers that oppose its passage, waters the immense plains of Walachia and Moldavia, where its streams unite with the Black Sea.

The Theiss,^h next to the Danube, the largest river in the kingdom, rises on the confines of Marmaros and Bukowine, crosses the vast marshes in the counties of Szathmas and Szabolcs, turns southwards after a circuitous course into the plains of Hungary, flows towards the Danube, and falls into it between Semlin and Petervaradin. The Theiss receives in its course all the streams of Transylvania and the greater number of those from the northern mountains in Hungary. Among the first may be remarked the Szamos, formed by two branches, of which the larger comes from the easternmost mountains in the principality, and the *Kœrœs*, whose different branches, the Rapid, the Black, and the White *Kœrœs*, rise in the mountains which form the limits between Transylvania and the county of Bihar. A considerable river is formed by their union, which, after having received most of the streams from the western sides of the mountains on the frontiers of Transylvania, enters the Theiss opposite Czongrad. The country through which these three branches pass in Hungary is very marshy. Baron Vay supposes the extent of land inundated by the Rapid *Kœrœs* only, not to be less than 55,000, and probably not more than 70,000 acres.ⁱ The *Maros*^k is also one of the large Hungarian rivers; it rises in the high mountains of Czik, receives the *Aranjôs* from the western mountains of Transylvania, and the two *Kukullos*,^l of which the sources are situated in the eastern part of the principality, and joins the Theiss opposite Szegedin. The *Bodrog*, increased by all the streams in the counties of Zemplen, Ungh, and Beregh, enters the Theiss below Tokay. The *Hernat* too is a feeder of the same river; it rises in Zips, and receives by the *Tarczal* all the waters in the district of Saros, and by the *Sajo* all the streams in the neighbourhood of Gomos and Torna. The *Erlan* and the *Zagyra* convey to the Theiss the torrents from the mountains of Matra and Czerhat.

Thus a large river flows in the middle of the Hungarian plains, and the junction of the *Maros*, near Szegedin, is not less than 600 feet in breadth. The Theiss abounds in fish, and like the *Maros*, the *Koros*, the *Szamos*, and the *Bodrog*, is navigable to a great distance. It might be wished that it were enlivened by an active commerce, but the low banks, bounded by inaccessible marshes, hinder too frequently the communication from one place to another.

^a "10 metres (6 toises)"—about 36 feet.—P.

^b Kitaibel, p. 14.

^c "German geographical square miles."

^d "1,732,800 Paris arpents, or 592,421 hectares"—equal to about 1,464,020 Eng. acres.—P.

^e Beudant, I. p. 41. II. p. 146.

^f *Donau* in German, *Duna* in Hungarian.

^g "The inclination of the plain is greatest towards the west."—M.B.

^h *Theiss*, in Hungarian.

ⁱ "He estimates at 28,089 hectares or 55,000 arpents (about 69,000 acres,) the territory permanently inundated by the river, and at 35,750 hectares or 70,000 arpents (about 88,000 acres,) the marshy grounds occasionally inundated."—P.

^k *Mureschul*, Walachian; *Marosch*, German.

^l *Kukel*, German; *Tarnava*, Walachian.

Vessels do not ascend the Theiss above Szegedin, but boats may sail to Szigeth. Thus it can merely be said to communicate with the interior of Transylvania by means of the Maros, which is navigable to Karlsburg. A low but dry plain separates the Theiss from the Danube, and the *French canal*,^a which has been cut across it, is about fifty-six miles^b in length; 1061 boats ply on it.

The Save^c forms, to a certain extent, the southern boundary of the Hungarian states. It rises in the mountains of Carniola, crosses Stiria, and enters Hungary near Zagrab; its feeders are the *Kulpa*, the *Unna*, the *Verbas*, the *Bosna*, and the *Drina*; it overflows its banks from the inconsiderable inclination of its channel, and inundates the low plains that surround it, where the water remains stagnant in many places throughout the year. Although a number of embankments have been raised in different parts of the country, these barriers are often borne down or rendered useless by the swelling of the river. The Save, by which the grain and tobacco of Hungary are transported into Dalmatia and Italy, is navigable in the greatest part of its course. The boats ascend to Sziszeg, pass by the *Kulpa* to Carlstadt, and the produce is conveyed from the last town by land.

The Drave rises in Tyrol,^d flows in a southeast direction, and falls into the Danube below Eszeck. It may be considered the natural limit between Hungary and the two provinces of Croatia and Slavonia. The Mur, the principal feeder, passes to it from Stiria. The course of the Drave is retarded beyond Legrad, and in Slavonia where the country is still more level, the streams are diffused over the plains, and form extensive marshes near its confluence.

One small river, the Poprad, refuses the Danube the tribute of its waters; it rises from the southern base of the mountains of Tatra in the district of Zips, and turns abruptly northwards to enlarge the Dunajec, a feeder of the Vistula, the sources of which are situated in Galicia on the northern declivities of the Tatra.

The Aluta may be mentioned on account of its irregular course; it rises in the eastern mountains of Transylvania, traverses an alpine valley from north to south, then turns northwards to the frontiers of Kronstadt, changes its direction to the west, reaches the district of Hermannstadt, bends to the south, traverses Walachia, and falls into the Danube.

The climate of Hungary varies according to the elevation of the soil. The Tatra mountains are always covered with snow; on several others, even on some in Transylvania, the snow remains to the month of July. The mountains in northern Hungary are not so high, but that region is exposed to the cold climate of the two lofty chains that approach it. Winter continues in all its rigour during six months of the year in the counties of Arva, Liptau and Zips, in the northwest, and in Marmarosch in the northeast. Snow falls sometimes in September in these districts, and remains frequently till the first days in June; the corn is hardly in ear about the twentieth of the same month, while it is ripe by that time in the plains. The climate may be said to a certain extent at least, to become milder in the ratio to the distance from the mountains.^e A curve drawn from Neitra by Hont to Kaschau bounds the region where the oak, the beech, different fruit trees and corn begin to thrive. Ano-

ther curve passing by Vacz, Gyongyos and Tokay, marks the climate where the vine appears in rich luxuriance, and where the fields are not exposed to the burning heat or the humid mists that rise from the lower plains. The elevation of these hills, which may be compared to verdant banks that surround a gulf of plains, is from 600 to 900 feet above the Black Sea.^f The mountains that separate Transylvania from the plains of lower Hungary, modify the temperature and render it more severe. Thus the wine in the central part of the province is of inferior quality, although the level at Mediasch is not more than 666 feet, and that at Schasburg 882 above the Black Sea, and the latitude, two degrees to the south of Tokay.

The higher plain is sheltered from excessive heat by the well wooded chain of Bakony; its climate is mild, in many places salubrious, and its hill sides are covered with vineyards. But the large islands in the Danube between Presburg and Comorn, and the extensive marshes of Hansag on the east of lake Ferto, occasion mists unwholesome to man, and hurtful to plants. The low plain or central and lower Hungary is wholly different as to climate. The heat is oppressive in the day time, the nights are cold and humid; exhalations rise from nitrous soils or water covered with plurites, dense and frequent mists are thus formed like those from the surface of a vast lake. The peasant in the middle of these boundless meadows, never sees a mountain, and wonders that fragments of ice are borne down by the Danube.

The low plains are unhealthy, but not so much so as might have been inferred from the accounts of travellers. The general statement cannot be denied, and the causes of the evil are so little subject to human control that it is not likely to be soon diminished; still, however, the frequent occurrence of different endemic diseases must be partly attributed to the carelessness and habits of the people. Mephitic and unhealthy exhalations rise from the marshes during the excessive heat of summer; yet it may be doubted if a more numerous or more industrious population could avert the course of the waters which descend from the surrounding countries. The saline or nitrous waters in certain districts infect so completely all the streams that no water fit for domestic purposes can be obtained without repeated filtrations. The native Hungarians resist the prevailing maladies of the country better than the Germans or Slavonians. It was thought by the physicians of the last century that the immoderate use of animal food was the chief cause of many diseases which prevail in this country; but it has been since proved by more recent and more numerous observations that the Walachians are the people most liable to such diseases, and it is well known that, in conformity to the precepts of their religion, they abstain from butcher meat two hundred and thirty-eight days in the year. The same maladies often prove fatal to the women in the lower orders of society, although they drink water and live for the most part on a vegetable diet.^g

It is unnecessary to give a minute geological account of the country, but some facts worthy of notice may be collected from the works of MM. Beudant, Kitabel, Esmark and Lefebvre. Granitic rocks predominate in the group of Tatra, the eastern mountains of Marmarosch, and the great southern chain of Transylvania. The summits of

^a Franzisci canal.—*Ed. Encyc.*

^b "14 German miles."

^c *Szava*, Slavonian.

^d It is there called the *Drage*.

^e "The climate becomes milder, in proportion as the mountains diminish in altitude."

^f Gyongyos is 581 (155 metres); Erlau, 675 (180 metres); the town of Tokay, 442 (118 metres.)

^g Gæmeri, de indole aeris Hungarici, Vienna, 1765. Schrand, (Proto-medicus Hungaricus,) Notice sur le Scorbut, Vienne, 1603.

Tatra consist of naked granite, but at no great distance below them, the same rock is concealed by extensive beds of primitive and compact limestone, which are again covered by layers of argillaceous schistus.^a Grauwacke covers or surrounds the base of most of the granitic mountains in Transylvania. An immense mass of compact limestone on the south of the great chain separates Walachia from the Bannat, confines the bed of the Danube, and passes into Servia and Bosnia.^b The statements of geologists concerning the secondary formations are according to their custom, contradictory. "The direction of the mean chains"^c says one "is transversal to that of the great chain; they are composed of sienitic porphyry or granular limestone. The metallic riches which nature has so liberally bestowed on Hungary and Transylvania are deposited in these mountains. The metals appear in the form of beds or strata in the limestone, and of veins in the porphyry."^d Immense deposits of rock salt are observed between these heights and at the base of the primitive calcareous chain. Their extent is not known, but they may be observed in Poland and Galicia, on the other side of the Carpathians.^e Heights like so many promontories that jut into the plains, are situated below the region of metals and salt; they are mostly composed of calcareous rocks of secondary formation, abounding with the remains of marine animals. Their sides are covered with layers of loose earth, filled with fossil wood and petrified bitumen.^f The aspect of the plains is very different; more than 300 salt springs rise between the hills; others are impregnated with nitre; they appear in different directions from the Szamos to the neighbourhood of Vienna, and from the Carpathians to the banks of the Drave and Danube. Lakes or rather pools, which contain natron or carbonate of soda, are scattered over all the plains, but are most numerous in the county of Bihar; they are dry during summer, and a whitish efflorescence is formed on the surface of these hollows.^g We may farther mention the uniform arrangement of all these salts, the marshes of natron encompassed but not mixed with sulphate of magnesia, the aluminous and nitrous earths separated by parallel layers, the alternate strata of white and brown salt near Thorda,^h and in the centre of the country, a level plain filled with shells. Now, as one narrow pass is the only outlet from these plains, for the Transylvanian and Servian mountains approach each other on the south of Hungary and are connected with the Alps in Dalmatia, it may be natural to suppose that lower Hungary was at one period a lake, and that the saline and alkaline crystallizations with which the soil is impregnated, were deposited in its ancient bed. The shells which are so abundant, must have existed in that lake or inland sea, and have perished at the time of the revolution by which the water was drained, and the channel of the Danube opened or enlarged.

It is the province of travellers to refute or confirm this hy-

^a Esmark, Journal des Mines, No. XLVII. p. 819. Lefebvre, same journal, XII. 39.

^b Beudant's Geological Map of Hungary.

^c Those of medium altitude.

^d Esmark, Journal des Mines, 915.

^e Fichtel, Histoire du sel gemme, passim.

^f Schedius, Journal de Hongrie, No. III. art. VI.

^g Different Memoirs in Crell's Annals of Chemistry.

^h Esmark, loco citato, page 820.

ⁱ *Porphyry-trapp*, German.

^k "La branche interieure du massif oriental de la Transylvanie"—the branch extending into Hungary between the Theiss and Szamos, from the great mass of mountains in the eastern part of Transylvania?—P.

pothesis from a more careful observation of the phenomena on which it depends. We shall state other facts of a different nature, relative to some isolated mountains or particular districts. M. Beudant who is more methodical than his predecessors, has shown that the sienitic porphyry near Schemnitz and Kremnitz is surrounded by a great mass of *trachyte*, a new term introduced by that writer, which embraces the porphyritic trapⁱ of Esmark. The same rock is found in Matra, Hegy-Allya, Vihorlet, and the lower branch of the Transylvanian range on the east;^k it is also common in all the mountains of secondary elevation throughout the country. The low hills in the north of Hungary consist of sandstone of the coal formation, and from the midst of them rise heights or peaks of limestone and grauwacke. Sandstone of the coal formation is also found in all the central districts of Transylvania, and fossil salt is found there in greater abundance than in Poland. The metalliferous range round Schemnitz is crowned in many places with basaltic rocks, and a vein of *charcoal*^l runs across a part of *Mount Calvary*, a detached cone of 2735 feet^m in height. Many basaltic masses are observed in the country to the north of the Matra, near the sources of the Ipoly and the Zagyra; but the most remarkable group rests upon the sandstoneⁿ mountains on the northwest of the Balaton lake. Few marks of the action of fire can be discovered in Hungary, unless the basalts be considered the effects of volcanic revolutions.^o MM. Beudant and Von Buch suppose the *trachytic* rocks to have been formed by fire under the waters of an ancient sea, but a spark might as well be compared to a conflagration as the action of such a prodigious fire to that of an ordinary volcano.

We shall leave these subjects on which ingenuity has been exercised in forming vague hypotheses, and give an account of the abundant and valuable productions that Hungary has received from nature. Metals of every kind are found in the Carpathian mountains, but the gold mines near *Schemnitz* and *Kremnitz* have lost much of their ancient wealth. The massive gold obtained at present is inconsiderable, and not more than two or three drachms are extracted from a hundred weight of ore. The annual produce amounts to two or three thousand marks of gold, and eighty or ninety thousand marks of silver. The deepest mine at Schemnitz is about 1200 feet below the ground; still it is 972 feet above the level of the sea. The mines of *Felsa* and *Nagy-Banya* in the county of Szathmar are very productive; the gold of Botza in the county of Lipto is found in a gray schistus, mixed with silver; it is considered the finest of any in Hungary or even in Europe. The same metal is carried down all the rivers in Transylvania, and the largest pieces are found in the Aranyos. Some of the forty mines in the country are situated in the sandstone mountains of Veraespatax, others in the amphibolic^p rocks of Fazebay. The mine of *Nagyag* was remarkable for the richness of

^l *Bois carbonisé* are the words in the original. See Esmark, Journal des Mines, XLVII. p. 806.

^m "734 metres."

ⁿ "Grès-lignite"—sandstone imbedding brown coal (lignite).—P.

^o In Transylvania there is a range of trachytic hills or mountains which separates the country of the Szeklers from the rest of the province. Distinct craters are only seen at the southern extremity of the chain. These craters have thrown out a vast quantity of pumice, which now forms a deposit of greater or less thickness along the Aluta and Maros from Tuschnad to Toplitza. The ground near a crater to the south of Tuschnad has a strong sulphureous odour. Not far from it to the S.E. is the hill of Bodoshegy (hill of bad smell,) from a rent in the summit of which exhale very hot sulphureous vapours, and at the base of it are some very fine ferruginous sulphur springs.—P.

^p "(Hornstein.)"

its ore; it yielded from 45 to 170 ounces of silver in the hundred weight, and from two hundred to two hundred and ten penny weights of gold in the mark of ore; thus the quantity of silver amounted to two thirds, and that of gold to a third. Although these mines returned at first a clear profit of 20,000 florins a month, the produce at present is not sufficient to defray the expenses of working them.^a None of these ores have been observed, though some writers affirm the contrary, in volcanic rocks; they are found in sienitic porphyry in a very decomposed state; the veins cross each other in a great many directions. In the ore at Nagyag, M. Kitaibel first discovered the new metal tellurium.^b The gold washings in the Drave on the confines of Croatia, Hungary and Stiria yield annually about 1,800 marks, and more than 12,000 are obtained from the rivers in the county of Temesch, a part of the Bannat. The remains of several ancient workings prove that the Romans were not ignorant of the metallic treasures in Transylvania and the Bannat of Temeswar, both of which were included in the ancient province of Dacia.

Iron is obtained in the palatinates of Gomor, Sol, Klein-Hunt, Veszprim, Zips and Abraiwar; at Wagda, Hunyad, Donsatra, and other places in Transylvania; and in the Bannat of Temeswar. The annual produce is not less than 694,000 hundred-weights.

Copper abounds in the mines of Neusohl, Herrungrund, Rosenau, Schmolnitz, Cinsiedel, Gœllnitz and Dobsau in Hungary; at Dognatza and Orawitza in the Bannat of Temeswar; at Dewa, Wesel and Gurasatul in Transylvania. Thirty-four thousand hundred-weights of a better than ordinary quality are obtained every year in Hungary. If Siberia be excepted, the same metal is not found in such abundance in any other country.

Lead, quicksilver, antimony, orpiment, cinnabar, sulphur, alum, arsenic, and chrysocholla,^c are among the other productions of the country. The quantity of quicksilver obtained from the mine of Zlatna in Transylvania amounts to 760 hundred-weights.^d Mineral alkali or natron appears in the form of a light efflorescence on the sandy plains in the neighbourhood of Debretzin and Gros-Waradin; the lake of Kis-Maria is sometimes covered with it, and the yearly produce is not less than 500 tons.

Immense deposits of fossil salt extend along the mountains of secondary formation, and seem, like them, to have been once covered by the waters of the sea. Although almost every rock in that region is a mass of salt, it is watered by limpid and fresh streams, but in the plains below it, innumerable brackish and salt springs rise from the base of the hills.^e Rock salt and saline springs abound in Transylvania at Torda, Vizaka, Kolos, Szeck, Dees and Para. The annual produce of Transylvania amounts to more than 1,000,000 hundred-weights; there are in the principality, six mines, one hundred and twenty pits, and twenty-five places in which undoubted indications of salt have been discovered. The salt of Rhona-Szeck in the county of Marmarosch is

^a The mine is situated at Szekerembe, about a mile and a half from Nagyag. The ore is found in a matrix of white quartz and rose-coloured *braunstein* which becomes brown by being exposed to the sun. The mine was probably worked by the Romans; but it was discovered anew by a Walachian in 1747. Stutz, Miner. Beschreib. von Nagyag. Vienna, 1803.

^b Carbonate of manganese (red manganese ore.) Brown spar is also found in its matrix.—P.

^c Schedius, Journal de Hongrie, I. p. 275—7.

^d A variety of Malachite or green carbonate of copper.—P.

^e Hassel, Statist. d'Autriche, p. 120.

^f Fichtel, Histoire du sel-gemme. f Demian, I. 187. Fichtel, &c.

believed to be the best in Hungary, and at no great distance are the mines of Nagy-Bosca and Szlatina. The quantity obtained yearly from this latter district is about 600,000 hundred-weights.^f Government derives an immense sum from that article; according to some writers, not less than 10,000,000 florins.

Precious stones and different kinds of marble are found in the country. The red marble of Gros-Wardein and Dotis is highly prized, and Dobschau is famous not only for its alabaster but green fibrous asbestos. Rock crystal in double hexilateral pyramids is sold for diamonds in more than one part of Hungary.^g The copper mine at Dognatza, in the Bannat, is rich in garnets, and that of Czerwentitza near Kaschau, is said to be the only one in Europe in which is found the precious opal, whether iridescent or of the colour of yellow topaz. Smoky topazes, amethysts, opalized wood, and other curious minerals are also found. Coal may be mentioned among the other productions. It does not abound in the country; but in 1806, the quantity obtained from a mine near Eedenburg was 16,000 tons.^h

The vegetable kingdom is as rich and varied as the mineral. The husbandman is rewarded for his labour by immense harvests of wheat, millet, rice and maize. The best wines in Europe are produced from the vineyards, and as many herds are fed on the pastures as on any in the Ukraine. Rural economy, it is true, is not so well understood as in Germany, but the Hungarians are indebted to the extreme fertility of the soil and to the excellence of the climate for advantages that are rarely united in other countries. It must not be inferred that all the provinces are equally fruitful; wheat is rare in the mountainous districts in the north, and the inhabitants, like those of Norway and the Highlands of Scotland, make use of oaten bread. They however cultivate the *ikrista*, a kind of rye, brought originally from Moravia. There are some sterile plains in the centre of the country, along the Danube. The greatest quantity of wheat is raised in the county of Bihar, and the southern provinces abound in *kukurutza*, a variety of maize, the spikes of which are often a foot in length. Rice was of late years introduced into the Bannat,ⁱ and that plant so well adapted for the marshy districts is now cultivated in Hungary.

The wine of Tokay is generally believed to be the best in Europe; the vineyards from which it is obtained, are situated in the county of Zemplin and in the district of Tokay, on mount *Mezes-Male*,^k near the village of Tarczal. It is by no means common in the country; the light and friable earth most favourable for it, ferments with acids. The inhabitants collect the first ripe grapes, which are dried, and in that state an essence is extracted from them, in appearance not unlike treacle, in taste resembling honey. A certain portion of it is mixed with the ordinary wine of the district, which is thus changed into genuine Tokay, of which there are two kinds, one called *ausbruch*, and the other *masklass*. The first is sold in *antals*,^l the second in barrels that hold two *antals*: the only difference between the wines consists in the quantity

^g Small crystals, remarkable for their brilliancy, are found in the county of Marmarosch, and receive the name of Hungarian diamonds.—*Ed. Encyc.—P.*

^h "Near 300,000 hundred-weights."

ⁱ Struve's Travels and Adventures, a German work, quoted by Demian.

^k Hung. for *honey comb*.

^l An *antal* is a Hungarian measure nearly equal to thirty-two quarts [The *antal* of Tokay wine ought to hold an *cimer* and a half, but in general it scarcely holds an *cimer*. The *cimer* also varies: that of Fuda contains 60 pints; the great *cimer* of Debreczin 160 pints and the small *cimer* 50.—*Ed. Encyc.—P.*]

of essence with which they are mixed; for each part put in the masklass, two are put into the ausbruch. All the wine which, in commerce, is called Tokay, is produced in the vineyards of *Kerestur*, *Sator-Wihely*, *Tallya*, *Mada*, *Toltswa*, *Sator-Alya* and others in the neighbourhood. The wines of Tokay proper, Tarczal and Mada are sweeter than the rest, those of Tallya and Zombor are stronger, those of Szegi and Zsadyan have the most aromatic flavour, and those of Toltswa and Benye sparkle like Champagne. Hungary is indebted for these vineyards to the care of King Bela IV.; by his directions plants which had been selected from the best in Italy and Greece were imported in 1241. *Formint*, a particular kind of grape, is said to have been brought from the hills near Formixæ, that were covered with the vineyards from which, according to Horace, the table of his patron Mæcenæ was supplied with wine. Other plants were brought by the Venetians from Malvasia, in the Morea. The prelates who repaired to the Council of Trent, and the pope himself, pronounced the Hungarian wines to be superior to any in Italy or France. It might have been well if the controversies for which they met, had been as impartially decided. The learned Hermann Conring commended these wines in the year 1576, although they were not generally known, and although the best way of making them was not discovered before 1650. The annual produce of the district is considerable; the actual quantity is not less than 240,000 *eimers*;^a the most of it is sent to Vienna and Warsaw.^b

Other wines of a good quality are produced in Hungary; that of Menesch is little inferior to Tokay in strength and aromatic flavour. Busching says the wine of Rust on the lake of Neusiedel burns like alcohol. The wines of Oedenburg, Wersitz in the Bannat, and the mountains round Buda are not inferior to the best in Burgundy. The wine of Schirak resembles Champagne. But, if Tokay be excepted, the best is obtained from Syrmia, or the western part of Slavonia; the red wine in that district is as good as the Monte Pulciano. The vineyards on Mount Alma are the oldest of any in the country; the first plants were put into the ground by the emperor Probus in the year 270. All the wines in Slavonia and Croatia lose their qualities by being transported into foreign countries; those in Transylvania retain them, but are hardly worth the expense of carriage. The vineyards in Hungary occupy an extent of 851,690 acres (*arpens*), and the average annual produce is about 18,230,000 *eimers*.

Flax and hemp succeed best in the Bannat, and in the counties of Arwe, Eisenburg, Zips and Scharosch. Woad and madder are cultivated near Apatin, in the county of Borschod, and in different parts of the Bannat. Melons, arbut berries, plums and cherries are common throughout the country. The quantity of tobacco exported yearly is not less than 200,000 hundred-weights. The cultivation of saffron furnishes employment to the Slavonian peasants in the north of Hungary, who are denominated *safraniczi*. Gall-nuts of very good quality, abound in the forests of Hungary.

The north and west of Hungary, and different parts of Transylvania, are covered with lofty forests, but no wood grows on the great plain in which the rivers meet. The forest of Bakony, the largest of any in the country, is remarkable

for the size of its oaks, some of which are as lofty and as straight as the finest firs. The Carpathian mountains are covered with the *Pinus pumilio*, or, as it is called by the inhabitants, *krumholz*, and a resin known by the name of Hungarian balsam is extracted from it. The yew and the *Corylus coturna*, L. are well adapted for household furniture, and the white lime which was supposed to belong exclusively to America, grows in different districts. The forest trees in the country cover about 7,452,280 acres.^c

We shall conclude this sketch of the vegetable kingdom by mentioning the different zones which a distinguished botanist has marked in the following order. 1st, The plain rich in corn and fruit trees, which extends to the first hills or to the height of nearly 1500 feet above the level of the sea. 2d, The hills on which the oak, beech, and chestnut trees thrive; their elevation reaches to 4000 or more correctly 3935 feet. 3d, The subalpine region from 4000 feet (above which the beech does not grow,) to 4600, where the fir disappears; it is covered with coniferous trees, and the birch is not observed as in Scandinavia, at a higher elevation than the fir. 4th, The lower alpine region from 4600 to 5600 feet, above which the *Pinus mughus* is rarely seen; it is the country of alpine plants, coniferous shrubs and a few stunted and isolated firs. 5th, The higher alpine region, which may be divided by two belts, the one reaching to the elevation of 6500 feet, where the traveller perceives occasionally an alpine plant or a half grown *Pinus mughus*; the other belt extends to the highest point of the mountains or to 8000 feet, and the rocks on the summits are covered with dark lichens.^d

This classification may without doubt be altered and improved by the first intelligent traveller that visits Hungary and the interior of Transylvania, a country in which vegetation may be modified by the coldness of the temperature and the mountainous fence that surrounds it. Wahlenberg has perhaps committed an error in confounding the two plains; the higher is in many respects different from the lower; in the latter the *nemphar* of the Nile is seen floating on every stream. But it might be most important to observe the connexion or difference between the plants on the Carpathians and those on the mountains in Bosnia, Croatia, Stîria, and the southwest of Hungary. The flora of Pannonia derives its particular character from the latitude, the nature of the soil and the extensive strata of calcareous and other rocks.^e

Some of the largest oxen in Europe are bred in Hungary; they are of the strongest race, and are distinguished by the length of their horns and their gray colour. The most numerous herds feed in the great plains between Debreczin, Gyula, Temeswar and Pesth, but they are inferior in the delicacy of their flesh to those on the verdant hills of Transylvania. The number of oxen throughout Hungary in the year 1786 was 2,394,000; it is not likely that they have increased since that time. No fewer than 150,000 are exported every year to Austria and Italy. The extent of meadow land in Hungary is not less than 1,486,098 acres (*arpens*), and 120,000,000 stones^f of hay are produced on it.^g

The sheep indigenous to the country is of a particular kind; it is the *Ovis strepsiceros* of Linnæus, and is distin-

^a An *eimer* is equal to thirty-two quarts [$5 \frac{6}{10} \frac{8}{10} \frac{0}{10}$ decalitres.]—M.B. The decalitre contains 2.64 wine gallons.—P.]

^b Szermay, *Notitia Hist. pol. econ. montium viniferorum comit. Zempfin, Kaschau*, 1798. Deresen, *Ueber Tokais weinbau*, Vienna, 1795.

^c "8,942,740 arpents."

^d Wahlenberg, *Flora Carpathorum*, LXVII. p. 308, 311.

^e "Perhaps the flora of Pannonia derives a peculiar character from its more southern latitude, and from the nature of the soil, in which limestone and sandstone* predominate."

* *Grès-lignite*, sandstone accompanying brown coal.—P.

^f "17,000,000 quintals."

^g Grellmann's Statistical Illustrations, (in Germ.)

guished by its large size, its spiral horns, and its coarse and short wool. It has been crossed with the Turkish sheep, and the mixed breed is very common in the south of Hungary. Spanish sheep were first imported into the country of Raab, and the western districts;^a their wool is sold for three times the price of the ordinary wool in the country.

The nobles pay little attention to their horses, which are small, swift and light-made. There were in the year 1795 about ten thousand in the royal stud near *Mezőhegyes* in the county of Czanad. The common people in Hungary have not many, and those they have are very bad. Austria cannot muster in all its dominions, a sufficient number for its heavy cavalry. The nobles keep Neapolitan horses for the saddle; others for wagons or carriages are brought from Holstein and Denmark. An immense number of hogs, not less than several millions, are fed in the central districts; but a great part of them are bought in Servia and Bosnia for the purpose of being fattened in Hungary. The Hungarian hog is of the common sort; that of Servia or the *mongoulitza* is covered with long bristles.^b The poultry in Hungary are bought by the Turks and Austrians; the geese which are exported and sold in different countries, are said to be Stirian or Bohemian; the fraud is rarely detected, and it is a common proverb among the common people, that a name may add to the value of a goose.

^a Michael Nemeth, *Journal of Hungary*, 1804, No. 1.

^b "—— a le poil crépu"—has its bristles curled or frizzled.

^c "Coqs de bruyere (cock of the wood, *Tetrao Urogallus*, L.) gélinottes (hazel grouse, *T. Bonasia*, L.) francolins (*T. Francolinus*, L.)"

Hungary and the adjacent provinces abound in every kind of game. The forests are haunted by deer, chamois, marmots, bears, wolves, otters, martens and lemmings. The birds that frequent them, are eagles, vultures, grouse of different species, partridges, wood-cocks,^c pheasants, wild ducks, bustards and pelicans. The rivers, and the innumerable lakes and marshes, teem with fish. Caviar is obtained from the large sturgeon of the Danube; pearl muscles are found in some of the rivers; carps weighing two or three pounds were sold in 1798 for eight shillings the hundred, or for less than a shilling the dozen.^d Turtles and frogs are exported to Vienna.

Hungary from the great variety of its resources might be compared to the finest countries in the world, but the progress of civilization is retarded by the indolence of the inhabitants, and the defects of a feudal administration. The mountainous districts might be as productive as any of the northern provinces in France, and a great part of the plains equal to those in Lombardy. Such changes could not be brought about without a more numerous and more industrious population, a greater number of canals, fewer privileges, and above all, fewer restrictions on the navigation of the Danube, the only natural outlet for the produce of the country.

^d "Carps were so abundant in 1798, that they were sold for 11 francs the hundred, or for two sous, one centime, a piece." The weight is not mentioned.—P.

BOOK CII.

EUROPE.

Hungary and the adjacent Provinces. Towns, Divisions, &c.

THE provinces, towns and memorable places in Hungary, or in the countries connected with it, are according to the order of our arrangement to be next described. To render topographical details less tedious, it may be best to illustrate them with observations on the character of the people that inhabit different districts, or rather such portions of land as are separated by natural boundaries, and in some instances by political divisions. As every town in Hungary has at least two names, and some of them five, viz. a Hungarian, Hungarian-Latin, German, Slavonian, and Walachian, it may be necessary, independently of every precaution, to request the indulgence of those who are apt to consider repetition of this sort useless, or at all events prolix. It shall be more clearly shown in the remaining part of this work, that such names are connected with the migrations of states and the successive inhabitants of different countries.

Ofen, (Hung.) *Buda*, (Slav.) *Budin*, a free and royal town the ancient capital of Hungary, is situated on the right bank of the Danube; although long inferior to Presburg, it has of late recovered its privileges, but not its ancient splendour. The Hungarian crown is kept at Buda, and the whole nation consider it a sort of palladium. Joseph II., who took it to Vienna, was obliged to return it a few days before his death. The council of the royal lieutenancy,^a or the supreme administrative body of Hungary, has since that time had its seat at Buda. The same place is supposed to have been the residence of Attila, or the *Eltzelburg* of the German and Scandinavian *sagas*; having remained in the hands of the Ottomans from the year 1529 to 1686, it still bears the marks of Turkish devastation; its warm baths, which are much admired, were built by the Turks. Buda serves as a fortress to the free and royal town of Pesth, which is directly opposite to it on the left bank of the Danube and both places communicate with one another by a bridge of boats three quarters of a mile in length. Pesth is worthy of notice on account of its different tribunals,^b government offices, a richly endowed university, a fine museum of natural history, and a large but antiquated library. The most remarkable public buildings are the military hospita,^c the theatre and houses or palaces of some noble families. The town is not strengthened by fortifications; its trade is more extensive than that of any other in Hungary; the inhabitants call it their Vienna, and the population is not less than 53,000, while that of Buda is only 32,000. The amount in both is equal to 85,000, which is not much below the average number of inhabitants in the capitals of the secondary

states. The famous plain of *Rokasch*^d is not far from Pesth; it was there that the Hungarian nation assembled to elect its kings; no fewer than 80,000 tents have on some occasions been pitched on the plain, and in them were encamped all the nobles in the kingdom.

At no great distance to the north of these central cities, are *Vacz*, (Germ. *Waltzen*), a populous town on the Danube opposite the fruitful island of St. Andrew, Gœdœllo which contains the palace of prince Grassalkowitz, Vissegrad, a royal castle once inhabited by Mathias Corvinus, but now fallen in ruins, and Gran, a royal city, of which the archbishop or primate of Hungary resides at Presburg. Gran has many names; it is called *Esztergom* in Hungarian, *Ostrihom* in Slavonian, and *Strigonium* in official Latin. It is celebrated for its warm baths, but an English traveller is of opinion that the frogs derive greater benefit from them than the inhabitants.

We shall now enumerate the towns in the north of the *Cis-Danubian* circle, or as it is generally styled, Lower Hungary, an administrative but absurd term, for the country is situated nearer the mountains. The first place of consequence is *Presburg*, (Hung.) *Posony*, which was long the capital of the kingdom; indeed it is not many years since it retained that dignity.^e The prosperity of Presburg depends on its commerce on the Danube, its manufactures and its proximity to Vienna. The castle is not more than three or four hundred yards from the town, and the royal hill in the vicinity is visited by every stranger. The kings ascended it after the ceremony of their coronation, drew the ancient sword of St. Stephen, and brandished it towards the four quarters of the earth, to indicate their willingness to defend the monarchy against all its enemies.

The large island of *Schutt*, (Hung.) *Czallokaz*, extends to the south of Presburg; although fertile in fruits and pastures, the dense mists are unfavourable to corn, and the inhabitants are subject to goitres. The district of *Szek-Vaika* (or the see of Vaika) is a small and separate tate in the territory of the archbishop of Gran. The lands are held in fief by petty nobles, who are denominated *prædialists*, and live under a distinct administration. *Komorn*, (Hung.) *Komarom*, an ancient town of 11,000 inhabitants, although situated on the island, is included in the *Trans-Danubian* circle; its citadel has never been taken, but Charlemagne entered the island, and defeated the Huns. *Tyrnau*, (Hung.) *Nagy-Szombath*, is one of the towns to the north of Presburg; it is well built, its trade is flourishing, but its situation unhealthy. *Landsitz*, though not very large, has been re-

restored the seat of government from Presburg to Buda, and at the same time removed to Vienna the ensigns of royalty. In 1790, on the death of Joseph, the regalia were returned, and are now secured in a vault at Buda.—P.]

^a Council of government.—*Ed. Encyc.* ^b "It is the seat of all the superior tribunals of the kingdom." ^c "Hôtel des invalides." ^d Rakosch. ^e Buda was declared the capital in 1790. ["Presburg lost its rank, as capital, in 1784, and definitively in 1790." In 1784, the emperor Joseph II.

marked on account of a fine castle which belongs to the Esterhazy family. The other places are Leopoldstad, a small fortress, Miava, a town of 10,000 inhabitants, and the small towns of *Pastený* and *Rajecz*, together with the village of *Teplitz*, all of which are famed for their thermal springs.

The towns in the country of the mines may be next mentioned. *Kremnitz*, the residence of the council that presides over the mining districts,^a is situated in the lowest part of a gloomy valley; many ducats were at one time struck in its mint, but the number is now much diminished.^b *Schemnitz*,^c from its population, and the industry of its inhabitants, must be considered the first mining town in Hungary; its position is rather more cheerful than that of *Neusohl*, *Herregrund*, *Königsberg* and other places of the same kind. Although the people are religious, frugal and industrious, although almost all of them are employed in the mines, their appearance indicates poverty and wretchedness. The particular nature of their occupation and the severity of the climate may have retarded their improvement. Their habitual sadness or melancholy may perhaps be attributed to the same causes, but their honesty, frugality, and indifference about the wealth that surrounds them, may excite the admiration of the stranger. Their civility to foreigners, particularly to those who take an interest in their labours, is another trait in their character; they are always ready to descend with any one who wishes to visit their subterranean galleries. On the confines of the mining districts are *Rimaszombath*, or in German *Gros-Steffelsdorf*, a place of some trade, *St. Nicolas* (Hung. *Szent-Miklós*), where the Jesuits established a college, *St. Martin*, *Skleno*, and other large towns.

Immense cavities, which terminate in numerous caverns, are observed between the horizontal strata in the calcareous mountains in the counties of Thurocz, Liptau and Arwa. The most remarkable are those near *Demanova* or *Demienfalva*. Some writers declare that they have seen in them, the bones of gigantic animals and different fossil remains; other travellers could only discover stalactites. The Dragon's den^d is supposed to be the one in which these curiosities are most common; many too, it is said, have been found in the cave of Okno.^e The subterranean water in the *czierna* or black cavern, has been changed by its congelation into pillars and other phantastic shapes; their lustre forms a striking contrast with the gloomy and dismal vaults.

Other wonders are observed by the traveller who ascends towards Tatra.—A rivulet near Trztina, that draws blood from every man that enters it, is much less frightful than might have been suspected from its name; it is nothing more than a turbid stream, in which some mineral held in solution is believed to be hurtful to those who are forced during the hay season to remain long on the cold meadows in the neighbourhood. The small and solitary village of Szulyo is enclosed in an amphitheatre formed by perpendicular rocks, and near it are three lakes, the *black*, the *green*, and the *white*; their names are derived from the nature of their channels, or from the colour reflected by the neighbouring rocks. Some part of the green lake is of a black colour, but springs rush with impetuosity from a bed of white sand, and form in several places a greenish tint.^f

^a "Chambre royale des mines."

^b *Körnös-Bánya* is the Hungarian name of Kremnitz.

^c *Selmcs-Bánya* (Hung.); *Sslavnitz-a* (Slav.)

^d Bredetzki, *Beyträge zur topog.* I. p. 140. *Ungarisches Magazin*, VI. 43—49, 279, 430.

We pass from these phenomena to the circle on this side of the Theiss, which forms part of Upper Hungary. The German inhabitants of the sixteen free towns in the county of Zips, are probably the descendants of a colony from German Silesia, established by King Geysa nearly about the time of the Transylvanian settlement. These townsmen are distinguished by their honesty and perseverance, but they are very averse to the least innovation or alteration in their ancient customs; they still retain in matters of little or no moment the fashions of their ancestors. The men however agreed after long deliberation to adopt the Hungarian pantaloons, but the women determined not to give up their old-fashioned head dress. Their manners are grave, their conversation formal and ceremonious, and their character as singular as their deportment. They spend the greater part of their time in worldly pursuits and religious duties. The different members of a family are as devout at church as they are industrious in the lint field. The girls prepare with much care the materials which their brothers convert into webs. They plant roses, carnations and a variety of flowers in every garden or plot of ground, and adorn themselves on Sundays with these simple ornaments. The word *Szasz* or Saxon, which is applied in Hungary to the Germans in Zips and Transylvania, is the generic name of all the German nations. The colonists in Zips resemble the industrious mountaineers in Silesia, in their manners and dialect, but that is no argument against the Thuringian or Rhenish origin which has been assigned them.^g *Neudorf* or *Iglo* is the most agreeable, and *Belu* the most gothic of the sixteen towns. *Kesmark*, noted for its cloth manufactures, is a favourite station of travellers. The *See of the ten lancers*, a privileged district, was so called from a feudal institution, by which the nobility that inhabited it were obliged to furnish a guard of lancers attached to the person of the king.

We descend from the Carpathians towards the plain by *Eperies*, *Kaschau* and *Erlau*, along the route by which the high road passes from Poland to Buda and Pesth. The supreme tribunal of the circle on this side of the Theiss is held in the royal town of *Eperies*, (Slav.) *Bressowa*; it is well fortified and retains its Lutheran college. *Sawar* or *Salzburg* has risen to importance from its salt-works, but *Kaschau*, (Hung.) *Kasa*, (Slav.) *Kossice*, is considered the capital of Upper Hungary; it was distinguished in the civil wars, its university is one of the best in the country, and its population is not less than 10,000 souls;^h the site was formerly unhealthy, but the unwholesomeness of the air has been corrected by the draining of the marshes. *Lentschau*, is an inconsiderable town near the mountains on the west of the public road; its inhabitants carry on a trade in hydromel. No copper mine in Hungary is so productive as the one in the large town of *Schmalnitz*; the water is impregnated with vitriol, the ground is strewed with marcasites, and the quantity of copper obtained yearly is supposed to be more than 1000 hundred-weights. *Rosenau* derives its wealth from its bleach-fields, and *Dobschau* from its mines, in which are found garnets and asbestos.

Torna is the smallest county in Hungary; it abounds in caverns, but two of them are considered by the common people much more wonderful than the rest. The one, or that of *Agtelek*, has excited curiosity from its immense extent,

^g Sartori, *Naturwunder*, IV. p. 186.

^h Boudant, *Voyage*, II. p. 216—220.

ⁱ Adlung, *Mithridates*, II. 219. Suppl. p. 374. *Ungarisches Magazin*, II. 480. Genersich, *Mémoires sur Kesmark, Kaschau*, 1804.

^h "Nearly 9000."

its numerous labyrinths, and the abundance of its stalactites; the other, or that of *Szilitze*, from its temperature being cold in summer, and warm in winter; the inhabitants are supplied with ice from it in the dog-days, and in winter it affords a place of shelter for flies, bats, hares, and foxes. It must be confessed that the cause of the phenomenon has not been clearly understood; an old explanation is perhaps as probable as any of the modern. The changes in the temperature of the cave are so slow that a long time must elapse before it can be modified by different seasons. The water filters through the roof of the cavern in summer, is exposed to a colder atmosphere, congeals and remains frozen. The air becomes gradually milder after the summer's heat and the warm south winds that prevail about the beginning of autumn; the ice then melts, and is not formed again before the end of spring, for not until then is the temperature changed by the cold of winter, and of the neighbouring lands that are frozen in February.^a

Miskolcz is a town of thirteen or fourteen thousand inhabitants in the hilly country near *Kaschau*; the neighbourhood is covered with vineyards and melon-fields. *Gyongios*, in the same district, with a population of 8000 souls, is not less agreeably situated. *Erlau*, though not so flourishing as it once was, contains still about 16,000 souls; the chief trade of the place consists in wine and cloth. An English traveller^b not being fortunate enough to get any of the famous *Erlau* wine at the inns in the town, has not spoken of the inhabitants with his usual impartiality or good humour; his account might have perhaps been different, had he dined at *Fuorcontrasti*, the palace of the bishops of *Erlau*, which is about a league from the city; it is known by the Hungarian, Slavonian and Latin names of *Eger*, *Iager* and *Agria*.

The traveller who leaves *Erlau* and proceeds in a north-west direction, passes *Ui-Hely* with its 300 cellars cut in the solid rock, and *Tokay*, which, besides its wines, boasts of precious stones, among others, the carnelian and sapphire-lynx. *Sarospatak* is peopled by 8000 inhabitants, and the college in the town is attended by more than 1200 theological and protestant students;^c it contains also a catholic seminary with a library of 20,000 volumes. The college was founded by *Ragoczy*, the illustrious chief of the insurgents, after the plan of *Comenius*, a celebrated and laborious philologist.

The next towns are those in the mountainous districts of the Upper *Theiss*, or in that part of the country inhabited by the Hungarians when they first entered the kingdom. *Ung-Var*, a fortified place, was one of the first Hungarian settlements. The strong citadel of *Munkatsch*, which is now converted into a state prison, stands on a solitary and almost inaccessible rock; it was three years defended against the attacks of the Austrians by the wife of the patriot *Tekeli*. *Huszt* and its strong castle are situated in the circle on this side of the *Theiss*. *Szigeth*, another town in the same department, is peopled by about 7000 inhabitants, who are for the most part employed in conveying the salt from the mines of *Rhona-Szek* to different parts of the country. The small town of *Nagy-Karoly* is built near the fine gardens and residence of *Count Karoly*. A large mint and other public buildings have been erected in the royal city of *Nagy-Banya*, which signifies the great mine; but the town of *Felsæ-Banya*, or the high mine, is more populous.

^a *Hamburgh Magazine*, IV. p. 60. *Busching*, II. p. 538.

^b *Townson*.

^c "— by more than 1200 students of the reformed religion." It contains a celebrated Calvinist college.—P.

^d *Slowacs*.

Szathmar is partly surrounded with walls, and inhabited by more than 10,000 individuals. A great quantity of soda is obtained from the extensive marshes of *Eczed*.

Having enumerated all the towns of any consequence in northern Hungary, some remarks may be offered concerning the different nations that inhabit them. The *Slovacks*,^d or Slavonians, the former subjects of the Moravian kings, have peopled all the northwestern districts, and are scattered along the northern frontiers. The *Rusniacs*, or Red *Rusians*, possess almost exclusively the country on the north-east. The *Magiars* are less numerous than either of the other two; they are confined to the borders of the plains, and the hills round *Presburg*, *Erlau* and *Szathmar*; they have also penetrated into the mountainous districts near *Torna*, *Gæmær* and *Kaschau*, and some of them still remain in the counties of *Unghwar* and *Beregh*. Thus the two dominant nations are branches of the great Slavonic race.

The *Slovacks* make up nearly the whole population in the counties of *Nyitra*, *Trentzin*, *Thurocz*, *Arva*, *Lipto*, *Zolyom*, *Zips*, *Barsch*, and *Sarosch*. They form about the half in those of *Presburg*, *Hont*, *Neograd*, *Gæmær*, *Torna*, *Abaujvar*, and *Zemplin*; they have passed southwards into *Gran* and *Pesth*, and in the northeast into *Unghwar*. More active and industrious than the Hungarians, they have increased in latter times, and established even in our own days several colonies in the low districts. If these Slavonians settle in any place inhabited by the Hungarians or Germans, the latter never flourish afterwards; they lose their language, are confounded with the Slavonians, or become extinct. Thus the mining towns, which were at one time possessed by Germans, are now wholly peopled by Slavonians; the German names of these towns are still suffered to remain, and are almost the only proof of the existence of their former inhabitants.

The *Slovacks* are in general well made, and the inhabitants of the high mountains, or the *Kopaniczars*,^e are remarkable for their lofty stature. They are gay, inconstant, adroit, and widely different from the Germans. Addicted to pleasure, and of a sanguine temperament, they want the honesty of the Germans, the reserve or dignity of the Hungarians, and the kind hospitality of both. They were long degraded by slavery; their language, which is ill adapted for intellectual improvement, has not been much cultivated, but their quickness in learning different branches of agriculture, the mechanical arts, and mathematics in its application to these arts, renders them very useful subjects. Their wealth, the produce of their industry, enables them to dress better than the other inhabitants; their costume consists in summer of light cloth pantaloons, and an open vest without sleeves, a shirt with broad ruffles at the breast and wrists, and a leathern girdle with a pouch for a steel, flint, tinder, tobacco, and a pipe. A cloth or sheep-skin great coat defends them against the winter's cold. The dialect of the *Slovacks* is a little different from the Slavonian spoken in Bohemia and Moravia, but the discourses from the pulpit, particularly the protestant sermons, are delivered in Bohemian or pure *Czech*. The *Slovak* books which we have seen, are printed in German characters. The total number of Slavonians,^f without including the *Rusniacs*, *Szotaks* and *Croatians*, amounts to 2,900,000 individuals.

^e Literally, the workers with spades, "from *koponica*, tillage with the spade. They are most of them protestants. See *Fabri*, *Memoires Geographiques*, I. p. 358."

^f "Slovacks."

The Rusniacs or *Ruthenians*, who are also called *Orosz*, and sometimes Greeks on account of their religion, are natives of Red Russia or eastern Galicia, from which they were driven by civil wars, changes in dynasties and feudal oppression. They settled in Hungary about the 12th century; they now form the greater part of the population in the counties of *Saros*, *Beregh*, *Ugols*, *Ungh*, *Zemplin*, and a part of *Marmarosch*. Thus placed on the borders of their native country, they mix with their compatriots in Galicia, in the circles of Stanis, Stry and Sambor. The same people have migrated to Bukowine and even to Transylvania; in the latter country they are confounded with the Walachians. The number of them in Hungary is not fewer than 360,000.

The Rusniacs belong to one of the demi-savage tribes in Europe. Averse to labour and industry, they have continued indolent and poor; fugitives on their arrival in the country, they still live apart from the other inhabitants. Although their language is a Slavonic dialect, they have not associated with their neighbours; that circumstance, it is true, may be partly ascribed to their religion. Some of them are members of the united Greek church, others adhere to the eastern rites. Their marriage ceremonies are singular; a girl is generally betrothed at the age of five or six, and brought up from that time until she arrives at womanhood, in the house of her mother-in-law. It sometimes happens that the young men carry away the girls that remain with their parents. A market for young women is held three times every year in the village of *Krasnibrod* near a monastery of the order of St. Basil. Thousands of Rusniacs resort to it on these occasions; the maidens are seen with loose and flowing hair; the widows are adorned with a crown of green leaves. When a man resolves to unite himself with any one of the fair sex around him, he attempts to carry her to the cloister in spite of the real or feigned resistance, which she or her relatives may offer; if he succeed in getting beyond the threshold of the church, she is at that moment betrothed. The friends of both parties are invited to the marriage; the bride endeavours to conceal herself in the crowd, and is discovered by the women, who present her to her husband. A German writer on statistics has declaimed against these customs; although it must be confessed that they are incompatible with the habits of polished nations, it is not less certain that they may throw some light on the manners of pastoral tribes, and on that period of barbarism or civilization, in which poetry and romance have flourished. Much interesting information might be derived from a residence among the aborigines of the Carpathian mountains, in all probability, the first country of the Servians;^a but it would be necessary for the traveller to study their language, to collect their national songs, and to observe their customs and superstitions.^b The Slovacks, the Rusniacs and the Magiars in the district of *Zemplin*, are all of them confounded under the general name of *Szotaks*.^c

We leave the Carpathian mountains and descend towards the plains of southern Hungary. The town of *Debreczin* is situated in a fertile but in some places marshy country on the

north of the *Maros*. It is the most commercial town in Hungary, and the most populous after *Pesth*, but there are no fresh water springs in its neighbourhood, no wood for fuel, no materials for building. The wealth of the people depends solely on their manufactures of woollen stuffs, leather, rosaries, and ornamented heads for tobacco pipes. It resembles an overgrown village rather than a town; many of the houses are covered with straw, and none of the streets are paved. The inhabitants, though rich, have no relish for social or intellectual enjoyments. The gloom that pervades the place, the forbidding qualities of the people, may be partly the effects of their sedentary occupations and the rigid doctrines of Calvinism. The only public institution worthy of notice, is a protestant university with a library of twenty thousand volumes. *Nagy-Varad* or according to its German name *Gros-Waradin*,^d a fortress and town on the *Kœrœs* of 7000 inhabitants, is also well situated in the great plain; its seminary is well attended, and it is the residence of several public functionaries. The other places are *Nemet-Gyula*, *Szarvas* and *Oroshaza*, all of them large towns, for the population of each is not less than six or eight thousand souls. *New Arad* is built on the *Maros*, and in the town of *Vasarhely*, a society is established of which the object is to diffuse the knowledge of physical science. The villagers of *Menes* boast of their wine, which by some judges is preferred to *Tokay*. All these plains, fertile in pastures, corn, wine, tobacco, and melons, are inhabited by Hungarians and Walachians.

The country beyond the *Maros* or the *Bannat* of *Temeswar* belonged to the Turks in 1718, and was formally united to Hungary in 1779. *Temeswar*, the capital of the province, is a large and regular fortress; its streets are broad and straight; the houses are built like those in Italy; the marshes which surround it, may be of advantage for its defence, but they are hurtful to the health of the inhabitants. *Wersitz*, a town consisting of a thousand houses, is peopled by *Raitzes*^e and Germans; it is situated in a district famous for its wines. *Lippa*, *Caransebes*, *Lugos*, *Meadia*, *Uj-Palanka* and *Pantchowa* are so many fortified places that rose into notice during the wars against the Turks, but none of them is susceptible of a regular defence.

The temperature of the baths of *Hercules* near *Meadia* is equal to 48° of *Reaumur*,^f and the cavern of *Veterani* is memorable from the bravery of a few soldiers, who resisted there an Ottoman army.^g The soil in the *Bannat* and in the *military limits* is humid but fertile; warmed by a burning sun, it yields immense harvests of corn, maize, rice and tobacco. The inhabitants are Walachians, Servians, and some German and Hungarian colonists.

The Walachians are scattered not only throughout the *Bannat*, but the counties of *Marmarosch*, *Szathmar*, *Bihar* and *Arad*. They form in these districts a population of not less than 600,000; their number in *Transylvania* is probably greater; according to *M. Lichtenstern*, it is equal to 800,000; those in *Bukowine* cannot be estimated lower than 200,000; so that if the *Zinzars* or *Macedonian Walachians* be included; there are not fewer in the Austrian dominions than 1,600,000. All of them belong to the Greek

^a Bartholomai, *Memorabilia provincie Czernick*. 1799.

^b "Many curious observations might be collected during a journey among these ancient natives of the Carpathians, particularly if the traveller were previously well acquainted with the language, national songs, and customs of the Servians, for this is probably the primitive country of that people."

^c "The *Szotaks* are a mixture of Slovacks, Rusniacs and Magiars, in the county of *Zemplin*."

VOL. II.—NOS. 97 & 98.

^d Gros-Wardein.

^e *Rascians*—Servians who came as a colony to Hungary during the reign of the emperor *Sigismund*.—P.

^f 48° of *Reaumur* is equal to 140° of *Fahrenheit*.

^g The grotto of *Veteranische Höhle* (*Veteran's cave*) is famous for the defence which *General Veterani*, with a few followers, maintained against the Turks, in 1694.—*Ed. Encyc.*—P.

church, but their religion is confined to the strict observance of frequent fasts and holy days, which make up a great part of the year.^a The fasts are seldom broken; even the robber restrains his appetite, thinking that God may bless his exploits. The priests are very ignorant, and possess in an eminent degree the monkish virtue of intolerance; a popish writer remarks that they surpass in that respect all the other Greek schismatics. It is needless to consider the members of any sect, schismatics, or to adopt the prejudices of the Vatican against the patriarchal church;^b had that rule been adhered to, the Austrians might have written more impartially concerning the Walachians. If any of them, it is said, enter a Catholic church by mistake, and sprinkle themselves with holy water, they repair to one of their own priests, who, for a stipulated sum, performs the ceremony of *lustration*, which consists in repeating many exorcisms and in drenching them with *good holy water*. The same priests have borrowed perhaps from the *Jesuits*, the right of pardoning what are called involuntary murders, such as are committed in the heat of passion, to avenge an affront or to vindicate offended honour. These crimes are not uncommon, and indulgences thus obtained are added to the revenue of the clergy, who adhering to the ceremonial law, "abstain from things strangled and from blood;" the women on that account are prohibited from killing a fowl in the ordinary way.

The Germans rail against their funeral rites. Deafening shrieks are heard over the body of the deceased; the same yells are continued at intervals until the body is put into the grave; all the mourners then ask him with a loud voice why he died, more particularly as he had either so many children or so many friends, so many oxen or so many sheep. A large stone and a cross, effectual charms against vampyres, are laid near the coffin;^c perfumes are spread over the tomb, libations of wine are poured on the grave. The attendants eat wheaten bread, a duty believed to be most grateful and flattering to the defunct, and then repair to a feast, which corresponds in magnificence with the wealth of him whom they deplore. The relations return several times to the grave, moisten it with wine, shriek horribly, interrogate the departed as to his motives for dying, and allege either that he acted unwisely, or ought to have changed his mind. The widow honours the memory of her husband by erecting on his tomb a pole on which are suspended a garland of flowers, the wing of a bird and a piece of cloth. These customs, however barbarous, are the expressions of natural and kindly feelings; the libations, the perfumes and the garlands are pagan but affecting ceremonies, which are partly retained by the primitive church.

A Walachian rarely touches a beech tree, because its sap in spring is of a reddish or a bloody colour, and because the Turks cut it into stakes with which they empale the Christians.^d An eclipse is a combat between the sun and dragons let loose from hell. A great noise is made, guns are fired, that the sun may not be devoured by the dragons. No mode of execution is more disgraceful than the gallows; it is more dreaded than any which refined cruelty has devised; the

reason alleged is, that the soul of a man with a rope round his neck, cannot emanate from his mouth.^e

Such are some of the statements made by the German writers concerning the moral condition of the Walachians in Hungary. A French traveller believes their vices to be inseparable from slavery, ignorance, and poverty, and the natural consequence of an oppression even less rigid than that to which they submit. But their frugality and industry are so great, and in these qualities the women are fully equal to the men, that the Walachian population increases rapidly, and is now spread over countries lately desert.^f If the Walachians settle in a district inhabited by Rusniacs or Servians, the latter are in time confounded with the former, and lose gradually their language, manners, and customs. Several noble families in Hungary, are of Walachian origin, and two celebrated heroes, John Hunniades and his son Mathias Corvinus.

When two or more friends resolve to remain faithful to one another through life, bread, salt, and a cross are put into a vase; they eat together, drink out of the same vase, and then swear by the cross, the bread and the salt, (*pe cruce, pe pita, pe sare,*) that their friendship shall only terminate at their death. This ceremony is called *mangar de cruce* (to eat on the cross,) and the individuals are ever afterwards styled *frace de cruce*, or brothers of the cross. The Scandinavian heroes observed similar customs, and they were common throughout Europe in chivalrous times.

No mention has hitherto been made of the towns in the plains between the Danube and the Theiss or the southern districts of the *Cis-Danubian* circle. Pesth may still be considered the central point. *Ketskemet*, the largest town in that part of Hungary, is peopled by 25,000 souls, most of them Hungarians; it gives its name to an extensive heath^g covered with sand, shells, and stones which are composed of sandy particles cemented together. The population of *Nagy-Karacs* is not less than 12,000; the neighbouring country is fruitful in vines. A castle built by prince Eugene is the only remarkable edifice at *Ratskeve* in *Czepel*, an island in the Danube. *Eugeniusberg* was another residence of the same great general; it was there that he devoted his leisure hours to agriculture; he was the first who imported the Arabian sheep into Hungary, by which the breed in the country was improved. *Kolocza*, an ancient but not very flourishing city, is the residence of an archbishop, who holds the highest rank after the primate. *Theresienstadt*, or *Szabadka*, which is situated in the interior, was formerly a mere burgh, but it possesses at present, with a population of 24,000 Hungarians, Croats, and Servians, the privileges of a free and royal town. The commercial industry of the inhabitants is surpassed by the townsmen of *Ketskemet*, and the prosperity of the place is attributed to a colony of Raitzes or Servians, who were induced to settle in it by the promise of valuable immunities. Its rural territory contains about 160,000 Hungarian acres or 240 English square miles;^h many parts of it are well adapted for vineyards, and so great an extent of land is attached to no other town in the Austrian dominions. The fortress of

^a "Their religion is confined to the strict observance of a lent which makes up a great part of the year, and which nothing can induce them to violate."

^b The Eastern or Greek Church, at the head of which is the patriarch of Constantinople.—P.

^c "A large stone and a cross are put over the head of the corpse, as a protection against vampyres."

^d "A Walachian would never dare to make use of a beechen spit to roast his meat, because this tree in spring is covered with a reddish juice, and

because the Turks make use of stakes of the beech for impaling Christians."

^e It is supposed that it escapes by a more ignoble passage.

^f Beudant, *Voyage de Hongrie*, 1. 73.

^g "Lande"—a term applied to the open heaths in Brittany, the sandy pine plains along the sea coast south of Bourdeaux, and the sandy and stony desert in Provence, near the mouths of the Rhone. It is here applied to a similar tract of country to the last.—P.

^h "160,000 Hungarian *arpents*, or 17 square miles"—the Hungarian *joch* or acre is fixed, in the *Urbarium*, at 1600 square toises.—P.

Szegedin stands at the confluence of the Theiss and the Maros; to the south of it is the free and royal town of *Sombor*, which obtained its privileges in 1751. *Neo-Planta* is the Græco-Latin name of a free town, which the Hungarians call *Ui-Videk*, and the Germans, *Neusatz*; its population in 1770 amounted only to 4000, it is now from 13 to 14,000. Most of the inhabitants were originally Servians and Armenians.

Titul is the principal place in the military district of the *Tchaikistes* or Illyrians, who keep up the fleet on the Danube. The vessels are galleys or *tchaikes* that carry from four to twelve guns; from 1100 to 1200 men are employed in the service, and they are commanded by a chief, who must be an Illyrian by birth. A portion of land has been assigned to them between the Danube, the Theiss and a line drawn from Carlowitz to the northeast. The dockyards, the arsenal and the houses of the staff officers are built in *Titul*, and near the same place are the remains of a Roman intrenchment, which extended from the banks of the Danube to the Theiss, and served probably to protect an establishment similar to that of the *Tchaikistes*. Prows of ancient vessels, anchors, Roman tools for building ships, and pieces of money, have been found in the neighbourhood; the most of them are deposited in the arsenal of *Titul*.

The plain of Great Cumania, (Hung. *Nagy-Kunsag*,) extends along the Berettyo between Pesh and Debreczin; its surface is equal to twenty Hungarian square miles,^a and it is inhabited by 32 or 33,000 individuals, mostly protestants.^b The country is fruitful in wheat and wine; *Kardzag*, the largest town in the plain, is peopled by 8400 inhabitants. Little Cumania or *Kis-Kunsag* is situated in two portions, between Pesh, Theresienstadt, the Danube, and the Theiss; it is twice as large as the other,^c and is peopled by 42,000 Catholics and Protestants. *Felegy-Haza*, the chief town, is inhabited by a population of 9500. The whole district is a plain of ordinary fertility; corn fields, orchards and vineyards are scattered over immense pastures destitute of trees or shrubs; several lakes of natron or soda may be observed in many parts of it. The mirage is often seen in the hot days of summer; it is the *deli baba* or fairy of the south; it tantalizes the shepherd and his thirsty flock with the sight of azure lakes crowned with forests, palaces and ruins. The Cumans, a Tartar tribe, rose into importance in the eleventh and twelfth centuries; they invaded, devastated, and ruled over the countries between the Wolga and the Danube. Although subdued by the Mongols in 1237, their numerous tribes were mentioned at a somewhat later period by Carpini and Rubruquis.^d Some of them found refuge in Hungary so early as the year 1086, and a greater number in the time of Gengis Khan. They mixed in many civil commotions, and it was not until the year 1440 that they professed Christianity, after having adopted the manners and language of the Hungarians. Their ancient dialect is now forgotten; the last individual that recollected a few words in it, was a bur-

gess of *Kardzag*, who died in 1770. Some specimens of the Lord's prayer have however been preserved, and its affinity with the Tartar or Turkish has thus been proved.^e It is unnecessary to enter into the doubtful discussions to which the history of this people has given rise; to inquire whether they were the same with the *Uzes* or *Polouzes*,^f or whether they were a branch of the *Petchenegues*,^g or an ancient division of the great Hungarian nation, that founded the town of *Magyar* in the *steppes* of *Kuma*, or whether they had any relation with the *Kunsag* or *Avars* of *Caucasus*. Such inquiries might form the subjects of separate treatises, but it is probable from the learned researches of M. Klaproth, that the origin of the Cumans is different from any hitherto assigned them. The river *Kama* is called the *Kuma* in the *Permiak* and *Siriaine* dialects. These Finnic tribes in the vicinity of the *Great Hungary* of the middle ages, call themselves *Komi*, and *kum* in the *Wogul* idiom signifies people.^h The Cumans might have been originally a Finnic nation on the banks of the *Great Kuma*; if that opinion be correct, it is likely that they became powerful after the migration of the Hungarians or Magiars, mixed afterwards in the course of their distant expeditions and political vicissitudes with Turkish tribes or the *Chazares*,ⁱ the *Uzes* and *Petchenegues*, adopted partly the dialects of these strangers, came after many wanderings to the new country of the Magiars, and settled among their kinsmen.^k

Iazygia or the country of the *Iasses*, (Hung. *Iasz-Orszag*,) is situated to the northwest of the *Great*, and to the north of the *Little Cumania*. It is a fruitful plain covered with corn-fields, vineyards and pastures, but it is not varied by woods or trees. *Iasz-Bereny*, although it contains 12,000 individuals, has the appearance of a large village; its inhabitants are ignorant and slothful, few artisans or tradesmen are found amongst them. The *Iasz* possess a district of 18 Hungarian square miles,^l and their number is not supposed to be less than 42,000. They are not, as their official Latin designation seems to indicate, the descendants of the *Sarmatian Iazyges*, but a tribe of Cumans, who served in the foremost ranks as archers. Their Hungarian name^m is expressive of their former employments; they are called *Balistarü*, in the language of different tribunals,ⁿ and by some Hungarian authors, *Philistæi*.

The three Cuman tribes enjoy important privileges. Subject to the direct authority of the palatine, they have their separate tribunals, modified taxes, and a special deputation at the diet. The *Haydukes*,^o to whom several immunities have also been granted, are only a distinct military body; their villages are situated to the northeast of *Great Cumania* between *Debreczin* and *Tokay*.

The portion of Hungary on the west of the *Danube*, is officially styled the *Trans-Danubian circle*; it forms a sort of quadrangle bounded on three sides by the *Danube* and the *Drave*, and contiguous on the fourth to the mountainous districts of *Stiria* and *Austria*. We may be supposed to travel

^a An Hungarian mile is about 4 English miles, consequently the surface of the district is nearly equal to 320 English square miles.*

^b The Hungarian mile is 9113 English yards or 5.18 English miles.—*Ed. Encyc.*—P.

^c "Of the reformed religion," or Calvinists.—P.

^d "47 square miles."

^e "10 or 20 years later"—Carpini was sent as an envoy to the khan of the Tartars in 1246, and Rubruquis as envoy to Tartary by Louis IX., in 1253.—P.

^f Thunmann, *Memoir on the Cumans*, *Acta Jablonov. Soc.* vol. IV. *Dugonics*, *Ethelka*, (in Hung.) vol. II. p. 384, &c. &c. See *Mithridates*, I. 480.

^f Polootzes.

^g Petschenegrans.

^h Klaproth, *Asia polyglotta*. Text, p. 187, 192.

ⁱ Khazares.

^k Horvath has almost proved, by other arguments, that the Cumans and Hungarians are the same people. See his work, *De Jazygum et Cumano-rum Init. et Moribus*. Pesh, 1803.

^l About 288 English square miles—[i. e. reckoning the Hungarian mile at 4 Eng. miles. See note ^a, on this page.]

^m *Iasz*; nominative plural, *Iaszok*.

ⁿ "Chancelleries," chanceries. The highest Hungarian court is the Supreme Aulic Chancery, which sits at Vienna.—P.

^o *Haidukes*, *Heydukes*, Germ. *Haiduken*.

from Buda across the well wooded hills of Pilis. The following towns are worthy of notice. *Dotis*, or *Tata*, contains nearly 10,000 inhabitants, and is much frequented on account of its thermal and medicinal springs. *Szent-Marton* stands at the foot of a hill, which the Benedictines call the *sacred mount of Pannonia*; these monks possess still the rich abbey founded by King Geysa. *Raab*, (Hung. *Gyor*), is situated on the banks of a river of the same name, and at the place where it joins the Danube; its population amounts to 14,000 souls; it is well fortified, and the best built town in the circle. *Oedenburg*, (Hung. *Soprony*), is a manufacturing and trading town; its lands occupy an extent of 1,920,000 square *klafters*, or more than four times the number of square yards; many of the fields are covered with vineyards.^a *Eisenstadt*, (Hung. *Kis-Martón*), is adorned with a large castle belonging to the Esterhazy family; the ministers of their large principality reside in the town.^b *Rust* is famous for its wines; *Neusiedel* is built on the northern banks of its lake, and *Esterhaza* is the Versailles of the princes who have derived their name from it. To the south of these places are the free and royal town of *Günz*, the seat of the supreme tribunal in the circle, and *Stein-am-Anger* or the rock on the plain, (Hung. *Szombat-Heiz*), a populous town on the river *Günz*, the birth place of St. Martin, bishop of Tours. The small town of *Kesthely* is the residence of the *Festetics*, a noble family, the founders of the Georgicon, an excellent seminary for agriculture and rural economy. *Saint Gothard*, (Hung. *Szent Goth*), is memorable from the defeat of the Turks in 1664, and *Stridova* is the native town of St. Jerome, a father of the church, and a man of genius. The countries on the south and southeast of Balaton are fruitful, but thinly peopled, and the inhabitants are more barbarous than their neighbours. *Kanischa* was once fortified; its ramparts are now in ruins. *Sigelth* is rendered illustrious by the heroic defence of Count Zrini, the Hungarian Leonidas. *Fünfkirchen*, (Hung. *Pecs*), is a small town of a single street, at no great distance from the Drave. *Mohacz* on the Danube, is famous on account of a victory obtained over the Hungarians in 1526, and from the no less signal defeat of the Turks in 1687.

Tolna on the Danube, *Simonsturn* on the Shor, and *Hagias*^c are insignificant towns; but to the north is the free and royal town of *Stuhl-Weissenburg*, (Hung. *Szokes-Feyer-Var*, Slav. *Bieligrad*), with a population of 13,000 individuals. The ancient kings of Hungary were crowned and interred in the city; in the neighbourhood are public walks, summer houses and gardens.^d *Vesprim*, an episcopal city, is at no great distance from the northern extremity of the Balaton lake; its numerous fairs are resorted to by the peasants in the adjoining districts, who appear in their varied and picturesque costumes.

The Magiars or Hungarians form three fourths of the population in the Trans-Danubian circle, and the western frontiers are chiefly inhabited by Germans.^e The indus-

trious natives of Stiria and Austria have introduced their system of husbandry into the counties of Wieselburg, Oedenburg and Eisenburg. The other inhabitants, who are still distinguished by their harsh and guttural dialects, migrated at a later period from Swabia.^f

The *Vandals* are most numerous in the counties of Szalad and Szumeg; some of them are scattered over different parts of Oedenburg and Eisenburg; they occupy in all 160 villages; they settled first in Bellatinz;^g *Turnischa*, their chief town, is situated in that seigniory.^h Their name has excited attention from the fact that the ancient Vandals, who fled for refuge to Pannonia, continued during forty years subjects of Rome,ⁱ and afterwards committed there dreadful devastations;^k but according to the general opinion they were of Gothic origin. The Vandals of Hungary call themselves *Sloveni*; their dialect is almost the same as that of the other Slavonic tribes; they appear to have been a colony of the Windes or Wends in Stiria, and differ at present from them only by their adherence to protestantism.^l The Hungarian jurists may have distinguished them by the celebrated name of Vandals, which was supposed to be synonymous with that of Wends by the latinists of the middle ages.

The ancient kingdoms of Croatia and Slavonia are now attached to Hungary. The first may be divided into three distinct physical regions: 1st, the country intersected with mountains, valleys and plains, watered by the Drave, the Save and the Kulpa; 2dly, the table-land formed by the different branches of the mountainous chains of *Kapella*, *Wellebit* and others; lastly, the maritime districts of Hungarian Dalmatia, at present united to Croatia. The phenomena most interesting to the physical geographer are to be found in the second of these three divisions. The calcareous mountains of which it is formed are lofty; the top of *Plissivitz* is about 5550 feet^m above the level of the sea, and the principal summit of mount *Wellebit* reaches to the height of 5400; the elevation of several others varies from 4200 to 4800; the *Kapella* mountains are not higher than 3000 feet. Immense masses of limestone, rent in every direction, and separated by huge caverns or frightful precipices, may be observed on all of them. Vallies enclosed on every side extend in different parts of the ridge, particularly in the south; some are watered by rivers that have no outlet or are lost in caverns from which they are conveyed perhaps by subterranean passages to the channel of the Kulpa. Their streams often swollen by heavy rains do not flow away with sufficient rapidity under the ground, and then the vallies are inundated or changed into lakes.ⁿ The districts of *Licavia* and *Corbavia* are the most remarkable of these vallies; they are peopled by rude tribes, whose manners and customs shall be mentioned in a different part of the work. The *Gyula* and *Slunichicza*, in addition to the *Lica* and *Corbava*, may be included among the rivers that have no apparent outlet; the last, before it ingulphs itself,

^a "It possesses 1,920,000 square *klafters* (toises) of vineyards." *Klafter* is the German, and *toise* a French word, for fathom (6 feet); consequently a square *klafter* (toise) is 36 square feet or 4 square yards, but the French measure exceeds the English in the proportion of 3.2 to 3.—P.

^b "It is the seat of the administration of their principality."

^c "It contains the castle of Count Appony."

^d "It has three superb avenues bordered with houses and gardens."

^e "But on the western frontiers two other nations are found in considerable numbers"—the Germans and the Vandals.—P.

^f "The Germans are most numerous in the counties of Oedenburg, Wieselburg and Eisenburg; they have introduced there, from Stiria and

Austria, their customs, their industry, and their agriculture; other more recent settlers have emigrated from Swabia."

^g "Their central point (*nucleus*) is in the lordship of Bellatinz."

^h Busching, *Erdbeschreibung*, II. 486.

ⁱ Jornandes, de Reb. Got. c. XXII.

^k Hieronym. Opera. I. p. 26, 93.

^l Anton, *Litterarisch. Anzeigen*, 1797. No. 81. They are confounded with the Germans in the statistics of Schwartner.

^m "925 Vienna toises."—The Vienna foot is 1.036 Eng. feet. The feet in the text are Vienna feet, corresponding to about 5750 feet English. The same remark may be made on the measurements below.—P.

ⁿ Hacquet's Travels, Leipzig, 1785. (in Germ.)

forms forty-three fine cascades which move an equal number of mills. The division is on the whole barren, still many small and well cultivated vallies are fruitful; it abounds in various kinds of excellent marble, with which the bridges and parapets on the *Caroline way*, and most of the houses at *Zeng*, *Porto-Re* and *Fiume* are built.^a

These countries are exposed to the *Borra*,^b or to a north wind, accompanied with intense cold; so great is its violence that large stones are carried in its course, and dashed to pieces in their fall.^c The district of *Rudaicza* is thus rendered uninhabitable and almost inaccessible. The narrow border between the mountains and the sea or the gulf of *Guarnero* is in many places protected against the *borra*, and the climate is as mild in these sheltered spots as in Italy; the fig, the lemon, and other fruits of the south, ripen in the open air.

A great part of Croatia, or the country watered by the *Drave* and the *Save*, yields abundant harvests of maize, oats, and rye, produces a great quantity of fruit, and is covered in some districts with large forests of lofty oaks. A German writer calculates that 3,700,000 *metzen*^d of corn are raised in it every year, and that 7400 hundred-weights of copper are extracted from the mines of *Szamobor*.^e The whole region resembles in many respects the western part of Slavonia.

The mountains of *Carievitza* traverse Croatia between the *Drave* and the *Save*, and pass into Slavonia; their height in some parts of that province is considerable. The *Papuk* is 2748 feet above the level of the *Save*; other summits covered with lofty forests add to the beauty of many landscapes in the country, and of none more so than the one near *Posega* where the hills become gradually lower, and join extensive plains. The plants from the heat and humidity of the climate, are green eight months in the year; every day new flowers expand, or fruits arrive at maturity.^f When the water collected during winter disappears, different kinds of wild trefoil and other nutritive herbs rise on the meadows, and the oxen of Slavonia are as large as those in Hungary, or among the largest in Europe. *M. Taube* tells us that the number of sheep fed on these pastures exceeds two millions and a half; although his calculation appears too high, its inaccuracy is as yet problematical. The wool of the country has been greatly improved by the labours of an agricultural society at *Merkopail*.^g

Agriculture is little aided by the lights of science, but the husbandman is rewarded in Slavonia by rich harvests. Maize yields from a hundred to two hundred-fold; wheat too is generally cultivated, but it is mixed with a great quantity of bad grain;^h the inhabitants are too indolent to hoe the ground or to sift the corn. It is generally supposed that all the grain crops raised throughout Slavonia amount on an average to four millions of *metzen*, or to twelve millions of bushels.ⁱ But besides those that are cultivated; there is another sort very common in many parts of the country,

which the people call *manna*; it is the same as the *Festuca fruitans* of *Linnaeus*. Almost every kind of fruit tree thrives in the province; the peach, the almond, the plum, the fig, and the chestnut, are the most numerous. The plantations of plum trees have been compared to forests. German writers assure us that *daki* or *sliva-vitcha*, a strong drink made of plums, is far superior to brandy or rum. The tobacco near *Posega* is as good as any in Turkey, and its culture is a source of wealth to the inhabitants. The white mulberry tree appears in luxuriance; consequently the silk must be of the finest quality. Madder grows in a wild state; the Austrians who brought some plants of it from the gardens of *Schœnbrunn*, were surprised on finding them inferior to those in the country. The Slavonian truffles are equal to any in Piedmont, but hogs feed on them, the people do not take the trouble to collect them; for the same reason, the *Fraxinus ornus*, or flowering ash, is neglected, but it yields in Calabria a precious manna, and, like the Italian poplar, succeeds as well in Slavonia as at the base of the *Appennines*.

Such are the natural riches of these two provinces, which are denominated kingdoms, although Slavonia does not contain more than 540,000 inhabitants, and Croatia 680,000, or at most, inclusively of the military districts, 700,000. Few Hungarians are settled in either country; the number of Servians is comparatively great.^k The Slavonian dialect resembles, in softness, that of *Servia*. The Croats, the ancient *Horwather*, *Hrowaths*, or *Chrobats*, i. e. mountaineers, make up the population of their country; they are a branch of the great Slavonic family, but their language is much more harsh and guttural than the Servian dialects, and forms an intermediate link between the eastern Slavonians or Russians, and the western or Poles and Bohemians. The Croatian dialect is more especially connected with that of the Bohemians and that of the Slovacks in Hungary, and it is not unlikely that the inhabitants migrated from the Carpathian mountains about the seventh century. They were invited by the Emperor *Heraclius* to deliver *Dalmatia* from the yoke of the *Abars* or *Avars*. Some ancient tribes of Proto-slavonic origin, perhaps the ancestors of the *Wends*, might have in this way been subdued.^l The Croats, thus increased in number, founded the duchies or principalities, in their own language, the *Zuwanias*, of *Carinthia*, *Friuli*, *Liburnia* or *Croatia Proper*, *Jadra* in *Dalmatia*, *Slavonia* and others. These petty states yielded in part to *Charlemagne*, but were in general the allies of the Greek empire. The pope retained his spiritual authority over them after the schism between the eastern and western churches, and they borrowed from the Germans their feudal institutions. *Cresimir*, their first archizupan,^m flourished in the tenth century; his son *Dircislav I.* took the title of king, and Croatia comprehended at that time the western part of *Dalmatia* and *Bosnia*. *Beligrad*, its capital, appears to have been situated on the shores of the *Adriatic sea*, at a place now called *Zara Vecchia* by the

^a Demian, Statistique, II. 162.

^b "In Greek and Albanian."

^c "Large stones are raised by it and carried to considerable distances."

^d A measure equivalent to three bushels.*

* The Vienna *metzen* contains 3537 cubic inches Fr.; the *minot* contains 3 Paris bushels (*boisseaux*), each 644 $\frac{2}{3}$ cubic inches, consequently 1934 cubic inches Fr., (*Encyc. Method.*;) the English bushel contains 2510.42 cubic inches Eng., (*Ed. Encyc.*)—P.

^e "Croatia produces about 3,700,000 *metzen* (minots) of Vienna, of every kind of grain, and the copper mine of *Szamobor* yields 8000 quintals per annum." The annual produce of the copper mines of *Szamobor* is about 2000 quintals.—*Ed. Encyc.*—P.

^f *Taube's Description of Slavonia and Syrmia*, a German work in three volumes; it is ably analysed by *Busching*.

^g "An establishment for the introduction of fine-wooled sheep, at *Merkopail*, has been very successful."

^h "Mauvaises graines," bad seeds—i. e. the crops are not cleaned from weeds.—P.

ⁱ "The whole annual produce of grain in Slavonia is estimated at 4 millions of *metzen*." See note ^e, on this page.—P.

^k "They are mostly settled in *Syrmia*."

^l "They settled in the country, and subjected the ancient Proto-Slavonic tribes of a part of *Illyria* and *Noricum*, the ancestors of the modern *Wends*."

^m Grand Duke.

Venetians, and *Biograd* by the people in the country.^a Other writers suppose however that it might have been a different town, that of *Biograd*, *Belligrad*, or *Bielgrad*, situated on the banks of the *Pliva*, a small river that falls into the *Verbas* opposite *Jaicza*.^b

The Croats, formerly a very warlike people, continued after the middle of the 18th century to lay waste the Ottoman territory by petty incursions, from which they returned in triumph to their villages.^c Although compelled by the Austrian government to relinquish these amusements, they still prefer the chances of war to the labours of peace. Those that live at a distance from the Turkish frontiers have acquired more industrious habits. Rude and unpolished, their good qualities are obscured by the vices of savage nations,—still some of them are capable of generous and exalted sentiments, and all of them are remarkable for their fidelity to a government which accommodates itself to their prejudices. They revolted against Austria in consequence of administrative innovations in 1755, and it was impossible to restrain their fury when their country was ceded to France in 1809. Their houses, without windows or chimneys, may be compared to large barns, where men, women, oxen, and pigs, live under the same roof,—yet a late traveller commends them for their cleanliness;^d however, he only visited those in the southwest of the Trans-Danubian circle. The women are fond of ornaments, and love to deck themselves in the most varied and glaring colours. The greater number of the Croats reside in the *military districts*, which shall be afterwards described. It might be inferred from the habits, customs, and occupations of these men, that they belonged to an army stationed in its quarters, or suddenly impeded in its march. A journey to their country might not be unprofitable to him who would write the history of the warlike nations in the middle ages.

Agram, the capital of Croatia, is built on a hill on the banks of the *Sava*, and is known by the Croatian and Italian names of *Zagrab* and *Sagabria*; it was also at an earlier period called *Grecz* or *Gratz*, which signifies a castle or a stronghold; it is now a free and royal city, the residence of the *ban* or viceroy of Croatia and Slavonia. The bishop is obliged to maintain a regiment, and the colonel, who must be chosen from the canons, enjoys the triple office of commander of the fort of *Dubitz*. The population of *Agram* amounts to 17,000 individuals, most of whom are nobles. *Warasdin* is a small fortified town on the *Drave*. *Kares-Vasarhely*, in Croatian *Krisevci*, and in German *Kreuz*, claims the title of capital.^e If the chroniclers of the country can be believed, the two brothers *Czech* and *Lech* left the town of *Krapina*, and founded the Polish and Bohemian monarchies.^f *Carlstadt*, a fortress on the *Kulpa*, is the capital of an extensive generalship, which includes the fortresses of *Kostanitz*, *Petrina*, and a number of others; for in Croatia, as well as in Bosnia and Dalmatia, every hill, however small, is crowned with some kind of fort. *Bellovar*, a town lately built, is the most agreeable of any in Cro-

atia, and the chief place in the generalship of *Warasdin*, which also includes the fortresses of *Kaprencza*, *Zuanitz*, and several others.

The narrow country that has been sometimes called Hungarian Dalmatia, and more correctly the coast of Illyria or Croatia, contains some towns worthy of notice, among others *Fiume*, or in German *St. Veit-am-Pflaum*, and in Croatian *Rekari*; it has flourished ever since a communication was opened into the interior by means of the *Caroline way*. That road is 65,000 yards in length, and terminates at *Carlstadt*; rocks levelled,^g abysses filled up, and precipices joined by bridges, remind the traveller of the great works accomplished by the Romans. The port of *Fiume* holds from 1200 to 1500 vessels, and the value of the commercial exchanges rises to four millions of florins. It is the Trieste of Hungary, and like Trieste, the customs, the language spoken by the higher orders,^h and the theatre, are Italian. The access to it is rendered difficult, sometimes dangerous, by the impetuous winds and storms on the *Gulf of Quarnero*. The *Zbiztri* inhabit the countries round *Fiume*; some writers suppose them the descendants of the ancient *Carni*, others of the *Liburnians*, but they appear to have spoken a Slavonic dialect, which has been since changed for Italian.ⁱ The other sea-ports, such as *Zengh* or *Segni*, *Buccari* or *Porto-Re*, and *Carlobago*, are less important, although the last is situated at the extremity of the *Josephine way*, a road cut at a great expense over mountains formerly inaccessible, but on which carriages and artillery can now pass. The distances are marked by white marble pyramids, and on the top of each of them a sun dial is placed, while a refreshing fountain gushes from the base. We cannot leave this part of the country without mentioning the small district of *Turopolia* or the plain of *Turo*; it consists of thirty-three villages, and there is not an individual in them of ignoble origin. All the inhabitants and all their descendants were ennobled by *Bela* the IVth. They send a special deputy to the Hungarian diet, and live under a separate government, at the head of which is a landgrave or *comes terrestris*.

The form and position of the Croatian coast have been repeatedly changed by ministerial caprice; as often has the situation^k of the towns and ports naturally dependent on Croatia, been altered by the German statistical writers: to enter into such *minutiæ* is now unnecessary; the country has become a dependence of Hungary.

Essek,^l a fortified town in Slavonia, is situated on the *Drave*, and surrounded by marshes, which render it unwholesome. It was there that *Solyman* the Great constructed in 1566 a wooden bridge or rather a series of bridges and causeways 2855 yards^m in length; the work during more than a century, was the boast of the Turks and the terror of the Hungarians. *Possega* is a royal town; *Vukovar*, *Diakovar* and *Pakratz* are large but ill-built towns. *Ratschka*, *Brod*, *Alt-Gradisca*, and other fortresses have been erected on the banks of the *Sava*. *Semlin* is situated in *Syrmia* or the lowest district of Slavonia; it has become

^a Kruse's Historical Atlas. Busching, IV. 220.

^b Busching, Erdbeschreibung, II. 429. The author refers to documents of 1059 and 1102, in the work of *Lucius de regno Dalmat.*

^c Letters on Croatia, 1778, (Schlætzter, Staats-anzeigen, I. p. 360—374.)

^d Beudant, Voyage, I. 66.

^e "— claims to have been the former capital of the kingdom."

^f "If we may believe the historians of the country, the two brothers *Czech* and *Lech*, the founders of the Bohemian and Polish monarchies, were natives of the town of *Krapina*." [The Bohemians call themselves *Czece*, and the Poles *Lece*.—P.]

^g "Percés," tunneled.

^h "The language," simply. The inhabitants of the towns on the coast are properly Italians. They have all the characteristics of that people.—*Ed. Encyc.*—P.

ⁱ Comp. Busching, Erdbeschreibung, II. p. 496. *Mithridates*, II. p. 649 658.

^k Not the natural, but the political situation.—P.

^l Slav. *Osziek*.

^m "8565 Fr. feet."

since 1739 the second commercial town in Hungary. In general, all the goods sent from Constantinople to Vienna pass through Semlin; its population, which is rapidly increasing, amounts at present to 9000 inhabitants; its trade is likely to be more extensive from its position on the Danube, and its vicinity to three or four feeders which fall into that river.^a A medical board established in the town, has the power of subjecting travellers and merchandize to quarantine. *Peterwaradin*, Hung. *Petervaras*, another town on the Danube, is important from its fortifications. Prince Eugene obtained there a signal victory over the Turks in 1716. The same people were twice routed at *Salankemen*, once in 1697, and the second time in 1716. The Greek patriarch of the Illyrian nation in Hungary resides at *Carlowitz*, a large town where a truce was concluded in 1699 between Austria, Venice, Poland and Turkey. A perpetual peace, one of the improvements or discoveries in our own times, was not then formed; it was judged wiser, considering the vicissitudes of human affairs, to enter into a truce for 25 years. *Mitrowitz*, a large town, is about two or three miles from the ancient *Syrnium*, the chief town of Illyricum in the time of the Romans. Twelve Greek convents of the order of St. Basil have been built in the romantic vallies of the *Fruska-Gora*.

Three districts on the Adriatic, at present under the Austrian government, are now called the kingdom of Dalmatia; they are connected with Croatia and Slavonia by the language and origin of their inhabitants, and they form the maritime part of the physical region in which Albania and Bosnia have been included. These districts are distinguished by their calcareous rocks, arid soil, marshes and stagnant water, by the climate of Italy in some places, and in others by the cold blasts of the *Bora*;—winter is unknown, but in place of it, continued rains last for six weeks. The numerous gulfs abound in different kinds of fish. The most delicate flowers and shrubs thrive in the open air; the plants and fruits on the coast are olives, Corinthian grapes, and vineyards that yield sweet and strong wines. The first district is the *Ex-Venetian Dalmatia*; the second, the former territory of Ragusa; the third, the *Bocche di Cattaro*.

Two rivers in the Ex-Venetian Dalmatia have been remarked on account of their romantic and picturesque course. The *Kerka* rises from a grotto, is precipitated over many small cascades, and forms in particular five large cataracts, of which that of Scardona is the most remarkable. The *Cettina* is more sombre; two of its sources issue from dark caverns; it rolls between frightful precipices, and falls from the height of 150 feet into an abyss near *Velika-Gubovitz*. The different provincial courts are held at *Zara*; its harbour is well fortified; its trade consists in rosoglio, silks and woollens. *Zara-Vecchia* or *Biograd* is believed to have been the residence of the Croatian kings. *Sebenico* is adorned with a magnificent cathedral, and its large harbour is protected by the fort St. Nicolas. *Spalatro*,^b a fortified town, is enclosed in the vast ruins of a palace, built by Diocletian; it is provided with a large harbour, and peopled by nearly 7000 inhabitants. The maraschino of Spalatro is imported into different countries. No fresh water streams, but many sulphureous and warm springs have been discovered in the neighbourhood, and at no great

distance from it are the ruins of *Salona*, a large Roman town. These are the principal places in the continental part of Dalmatia. The islands may be next enumerated; we shall begin with those on the north and advance southwards. *Veglia* is a long range of rocks, but in the interior are some lofty woods, extensive orchards, fruitful vineyards and valuable quarries of red marble. *Cherso* is a large calcareous hill, of which the sides are covered with vineyards and olive plantations. *Osero*, an island of the same kind, is separated from the former by a channel not more than five yards in breadth; the town of Osero was at first built on the island of the same name, but every part of it is now situated in Cherso. Numerous flocks of sheep graze on the fertile pastures of *A. be*, but even these animals are sometimes destroyed by the *borra* or cold north wind. *Pago* may be compared from its many sections to a number of small peninsulas: its salt works are productive; when in the possession of the French they yielded annually about 140,000 hundred-weights. All these five islands lie in the stormy gulf of Quarnero; the three first are dependencies of Croatia. *Grossa* abounds in vines and olives, *Coronata* exports its cheeses, *Morter*^c is a place of refuge for pirates, and *Bua* is remarkable for a well of asphaltos. The large island of *Brazza* is peopled by twelve or thirteen thousand inhabitants; it produces 45,000 tuns^d of wine, and a great quantity of oil, fruit, mastich, saffron and silk. *Lesina*, the ancient *Pharia*, is still larger, but not so populous; it is rich in wine,^e and the profits derived from its sardine fisheries amount annually to 80,000 ducats. Its fine marbles, its bees, its fields fragrant with rosemary and other aromatics, and its harbours, render it perhaps more agreeable than any other islands on these shores. *Lissa* is situated at a greater distance from the coast; it abounds in fruits, and its wool is valuable, but the great importance of the island depends on its harbour built and fortified by Napoleon, the late Emperor of the French. *Curzola* is ill provided with water; its wealth is derived from its naval timber.^{f g}

The Dalmatians are not an industrious people; their chief occupation is that of ship-building; they possessed in 1816 nearly three thousand vessels and barks that plied as far as the Archipelago. Two great roads have of late years been opened; the one from *Zara* to *Kirin* and onwards to *Sign*; the other along the coast. An extensive trade is carried on in rosoglio, in maraschino, which is made from the juice of acid cherries cultivated in different parts of the country,^h and in a spirituous liquor extracted from the fruit of the arbut tree, the most common plant on the uncultivated islands. The ordinary quantity of wine exported yearly, is said to be 650,000 Austrian *eimers*.ⁱ The gross profits from the sardine, thunny and mackarel fisheries are not less than £449,950, or 17,910,000 Venetian lire.

The indigenous Dalmatian, like the Bosnian, is of Slavonic origin, but the inhabitants of the towns under the protection of Venice since the eighth century, have adopted the Italian language, and have not wholly lost the customs, devotional ceremonies and jealousy of the old Italians. The *Morlachians* are a separate tribe in the interior of Dalmatia; they call themselves *Vlach* or *Walachians*, but it is not likely that they are sprung from that people. Those who dwell in the north, on the banks of the *Kerka*, differ

^a Semlin is situated at the confluence of the Save and the Danube, and not far from the mouths of the Theiss and Temes.—P.

^b "Spalato."

^c Mortaro or Mortero.

^d "180,000 piéces" (pipes or butts.)

^e "It produces 100,000 *barillis*."

^f "It produces 80,000 barrels of wine."

^g Germar, *Voyage en Dalmatie*, 1817.

^h "In the islands."

ⁱ *Lichtenstern, Statistique*, III. p. 1630.

from the other Dalmatians by their fair complexion, light blue eyes, and the form of their features; it might be thought from their appearance that they were the descendants of a mixed race of Goths and Tartars. Such as reside in the south, near the Cettina and Narenta, may be known by their dark complexion, long visage and black hair; both speak a Slavonic dialect, mixed with Latin or rather Walachian. Two hypotheses have been formed concerning their origin. M. Engel supposes them a colony of Bulgarians, mingled with the Walachians, who migrated to Dalmatia about the year 1019, and were denominated *More-Vlachs* or maritime Walachians.^a M. Mannert traces them from the Avars, a people subdued in the seventh century, by the Slavonic Croats or Chroats. Some of the vanquished remained with the conquerors, and their descendants are still distinguished by the physiognomy of their forefathers.^b It is obvious that the subdivision of the Morlachians into two distinct tribes, is not accounted for by either supposition, and both for that reason appear to be incorrect; the subject may perhaps excite the attention of future travellers. *Poglitza*, a district of Dalmatia to the northeast of Spalatro, retains its republican forms under the Austrian monarchy; it is inhabited by Morlachians, and by Hungarian and Bosnian nobles, and their number amounts to 16,000 individuals. The magistrates are chosen by the people, who meet for that purpose in the *zbor* or assembly. Hungarians only are eligible to the office of *Great Count*, or the highest dignity in the state. All the Poglitans are bred to arms, and only pay a fixed tribute to the Austrian emperor.

The republic of Ragusa is now added to Dalmatia. The ancient Epidaurus was situated in its territory, in the neighbourhood of *Molonta*.^c Ragusi *Vecchio*^d was founded by old Roman colonists, but they were compelled by repeated earthquakes to remove to the present town, and there, during the dark ages, the inhabitants made rapid advances in civilization, commercial industry and policy, worthy of a more extensive theatre. Ragusa, under an aristocratic government, rivalled Venice in its fleets, trade and manufactures; it possessed the Dalmatian and Bosnian mines, it produced poets, geometers, painters and historians, and merited the title of the Slavo-Illyrian Athens.^e Conquered at last by the Venetians, having sacrificed its navy in consequence of its devoted constancy to Spain, it was visited at a later period, in 1667, by a tremendous earthquake, and has never since risen into importance. It remained under the protection of the Porte, and was destroyed,^f like Genoa and Venice, during the great European invasion of the French, from whose hands it passed into the power of Austria.

The territory of Ragusa extends over a surface of 78 square leagues or 702 square miles; it consists of a narrow arid and rocky tract on the coast, but some of its hills and vallies are covered with vines, olives and a great variety of fruit. The country on the north terminates in a peninsula, and is bordered by several islands. Ragusa, (Slav. *Dobrownik*,) is built in the Italian style, and does not differ from the towns in Italy by the customs or language of its inhabi-

tants. The ancient *palace of the republic* is still suffered to remain. The townsmen carry on a trade in silk and rosoglio; the population, including that of the suburbs, amounts probably to 15,000 individuals. The harbour of Ragusa is small, but the docks and warehouses of the Ragusans have been built at *Gravosa*, and a line of country houses extends from the capital to that port.

The district of *Canali* is fertile in orchards, and overtopped by Mount *Sniecznicza*, on which snow is sometimes seen. The valley of *Ombla* is covered with villas, and the small town of *Stagno* is situated on two gulfs, and receives from the northern the unwholesome exhalations that rise from the marshes of the Narenta. The peninsula of *Sabiencello*^g is peopled by good mariners; the island of *Agosta* is defended by natural ramparts, and the inhabitants boast of their grottos and the Phœnician inscriptions. St. Paul, it is supposed, was shipwrecked on the island of Meleda; the pilgrims who resort to it, admire its woods and romantic lake.^h The small island of *Giupana* or Scipan possesses a fine harbour and abounds in fruit. Our limits prevent us from describing the festival of St. Blaise, the tutelar saint of the republic, or the laws of the *Druczina*, a fraternity of young nobles, or the patriarchal marriages of the peasants, and many other ancient Roman and Slavonic customs, that still exist in a territory of which the population is not greater than 52,000 souls.

The deep gulf of Cattaroⁱ penetrates in a winding direction between steep rocks, and receives no other feeders than mountain torrents; the lower declivities are covered with vineyards, fig, olive and many other fruit trees; villages are interspersed among fertile and verdant hills, and the romantic landscape is bounded by the thick woods of Montenegro. The summers in the valley near the gulf are as warm as at Naples, the orange and the lemon tree thrive in the open air, snow is never seen, winter is not a cold but a rainy season, and even then the fields and gardens are covered with the vervain,^k the passion flower, and many other tender plants. *Cattaro*, a fortified town, is built near the bottom of the gulf; its inhabitants are distinguished by their hospitality, and the fashions, manners and customs of Italy have been introduced amongst them. *Debrotta* is entitled the *most catholic*, and its townsmen never marry with strangers. *Persagno* is remarkable for its fine buildings, and *Perasto* for its site in a natural amphitheatre. *Rizano*, once the chief town on the gulf, was for a long time peopled by pirates; their descendants are not a polished people, and they still retain some traces of the ancient Roman costume. So great was at one time the dread of piratical invasions, that almost all the habitations were confined within the *Strait of the chain*, a natural barrier that may be defended by infantry; even at present the only dwellings on the shores of the outer gulf are the village of *Theodo*, which consists for the most part of country houses, and the fortified but small and dismal town of Castel-Novo. The district of *Zuppa*, and the ports of *Traste* and *Pastrovich* on the south of the *Bocche*, are peopled by an active race of men, who generally carry on predatory wars against the Montenegrines.

^a Mithridates, II. p. 642.

^b Mannert, *Geographie des Grecs et des Romains*, VII. (X.) p. 305.

^c Mannert, VII. p. 350.

^d Danville and *Encyclop. Method. Geog. Anc.* the place Ragusi Vecchio on the site of Epidaurus. Malte-Brun calls it the heir of Epidaurus, and says "it became the asylum of old Roman colonists."—P.

^e Appendini, *Notizie storiche critiche, &c.* Ragusa, 1802. There is an abstract of the above work by M. Depping in the *Annales des Voyages*.

^f "Elle a peri," it perished—as a government, not as a town.—P.

^g "It is called *Peliesatz* by the natives."

^h This is entirely a perversion of the original. "St. Paul was not shipwrecked on the island of *Meleda*, but they admire there among other curiosities, a romantic lake."—P.

ⁱ *Bocche di Cattaro*.

^k *Verbena triphylla*.

Hungary claims the southern extremity of these maritime provinces, which, however, possess a separate administration, under the Austrian government. The *Bocchesi* unite with the vigorous constitution of the Slavonians, the vivacity, bigotry and jealousy of the Italians. Eager after gain, accustomed to a sea-faring life, they quit the helm or the oar for the musket, and retain in some degree the rude ferocity of barbarous nations. Their notions of justice are very vague, blood for blood appears to be their great rule, and even so late as 1802, young women, who were seduced and became pregnant before marriage, were stoned to death. Each district has its magistrates and privileges; all of them do not contain more than 30,000 individuals, yet a state so insignificant is divided by Catholic and Greek factions; it has been sometimes styled *Austrian Albania*.^a

It only remains for us to give a short account of Transylvania, which forms politically a separate state, with the title of Grand Duchy, but is naturally and geographically a continuation of Upper Hungary. *Siebenbürgen*,^b the German name of the province, has been the theme of many discussions, some writers maintaining that it signifies seven mountains, others seven towns; it has also been derived from seven Hunnic chiefs, who settled in the country, and from a similar name for a group of mountains on the banks of the Rhine; some philologists insist that an ancient people, the *Sibyni*, have left some obscure traces of their settlements, for example, the word *Szeben* or *Cibinium*, the name of an important town.^c It is difficult to arrive at any conclusion on the subject, but it is certain that the Hungarians called the province *Erdely* from its relative situation to their own country; instead of that word, its Latin synonyme, *Ultrasylvania*, was first used, and afterwards changed into *Transylvania*. The physical geography of the country has already been considered; its Alps, rivers, productions and climate have been described from the scanty materials afforded us by travellers and geographers, but it is to be regretted that no full or accurate account of Transylvania has hitherto appeared.

Three nations represented in the Transylvanian diet, are situated in different parts of the principality. The northern and western portions belong chiefly to the Hungarians, the country of the Szeklers extends along the eastern frontiers, and the Saxons possess the lands in the south. The Walachians make up perhaps one half of the population, but no particular territory has been assigned to them; they are most numerous in the central and eastern districts.

The Saxons possess *Hermanstadt*, a town of 16,000 souls, regularly built, encompassed with walls, the capital of the Saxon nation in Transylvania, the residence of a military governor, and the seat of the public authorities. Among its institutions are a Lutheran seminary, and a learned society whose researches are confined to subjects connected with history.^d It was called *Hermanstadt* from *Hermann* of Franconia, a chief of the Saxon or German colony, and the reputed founder of the town; but we know no document that informs us whence it has derived its Hungarian and Latin names of *Szeben* and *Cibinium*.^e

The *gate of the Red Tower* is a famous pass at no great distance from *Hermanstadt*; the *Aluta* flows there through a narrow valley, and is precipitated into the plains of *Walachia*. *Reps*, *Heltan*, *Rosinar*, *Gross-Schenck*, and other large towns, as well as *Hermanstadt*, are situated in the *Alland*, that is, the old country or ancient colony. *Schesburg* (Hung. *Segesvar*), *Medwischk*, and *Birihahn* are the most remarkable places in the *Weinland*, or wine country. *Mullenbach*, *Reismarkt*, and *Broos*, are the principal towns in the district, which, according to the signification of its name, *lies in front of the forests*.^f

Fogaras is a well-built town in a district that belongs to the Saxons in virtue of a lease; that fact may appear strange to the national lawyers of France or England, but it should be remembered that acquired rights are still respected in one antiquated corner of Europe. *Kronstadt*, (Hung. *Brassau*), the first town in Transylvania, both in point of wealth and the number of its inhabitants, contains 25,000 souls; it is partly fortified, and possesses a Catholic and a Lutheran college, and it is said that the value of the goods bought and sold in the town amounts to 7,000,000 florins; of that sum five millions are placed to the account of the Greek Company; its manufactures are not exported to foreign countries.^g *Burzenland*^h or the land of tempests, of which *Kronstadt* is the metropolis, forms the eastern extremity of Transylvania; it reckons among its inhabitants 60,000 Walachians. *Nasen* or *Bistritz*, a neat town with a Calvinistic college, is the capital of a detached district near the frontiers of Bukowine.

The formation and existence of a German state surrounded by Slavonic, Walachian and Hungarian countries, have excited the attention of geographers and historians. King *Geysa* the Second, invited in 1143, many German families, chiefly from Franconia, Westphalia and Thuringia, to occupy the *deserts* on the east of Hungary, and to defend the kingdom on that side from barbarous invasions. But it is said, on the other hand, that *Hermann*, the founder of the town, which bears his name, assisted at the nuptials of *Stephen I.* in the year 1002 or 1003. *Andrew II.* granted by a diploma in 1224, to his Teutonic guests (*hospites nostri theutonici*,) certain immunities and privileges, by which a distinct state was formed, exercising its own political and municipal rights. These rights have been preserved through many struggles and wars raised and carried on by despots from the time of *Bathory* to *Joseph II.* who declared, but in vain, that the *Saxon nation was extinct*. It is not known if the German colonists mingled in their new country with any descendants of the Goths, but they probably met there with some Slavonic villages; certain it is that they received from a liberal monarchⁱ not only the forests of the *Blaches* (Walachians,) and *Bissenes* (Petchenegues,) but the said *Blaches*, and the said *Bissenes* themselves. The colonists employed these people to tend their flocks; no feudal burden was imposed on them; the Germans resolved to sanction no hereditary aristocracy in their settlement. The people elect their own senators and magistrates, and enjoy the blessings of civil liberty in a greater degree than the inhabitants of most states; they parti-

^a Tableau des Bouches du Cattaro, par un officier autrichien, avec une carte. (Annales des Voyages, IV. 145.)

^b *Siebenbürgen* is from its composition, seven towns. Germ. *burg*, town, castle; *berg*, mountain.—P. ^c *Hermanstadt*.

^d "Société des philohistoriques," Philo-historical Society.
^e *Comes Cibiniensis* occurs in a diploma granted by king *Andrew II.* The *Sibyni* were a Sarmatian people; *sybina*, in ancient Macedonian, was a kind of javelin; *szyb*, in Polish, is a child's javelin."

^f Germ. *Land vor dem Walde*, country before or in front of the wood or forest.

^g "Its manufactures, although very numerous, are only domestic establishments."

^h From *burza*, a tempest, in Slavonic. It is not unlikely that the Slovaks of the Carpathian mountains occupied the district.

ⁱ *Andrew II.*

icipated by means of their representatives at the Transylvanian diets, in the political freedom of the Hungarians.^a Several curious laws, calculated to repress immorality among all classes of men, and luxury or effeminacy among the rich, may be found in their municipal regulations. The people are divided into fraternities, neighbourhoods and tithings; reciprocal duties are assigned to the members of these corporations, and a sort of family police established. Dress, ceremonies and feasts are all regulated, and in many instances with much skill and wisdom. The higher ranks, from an eager desire of innovation, have resisted these decrees,^b but the Christian religion is still taught in its ancient purity, and the children learn the elements of their language in the Holy Scriptures. These Germans call themselves *Teutsche*; the official Latin name of Saxons has been given them by the Magiars, and has been probably handed down from the time of their Finnic ancestors.^c

The *Siculi* or *Szeklers* inhabit a country in which there are few towns, but many large villages, such as *Szent Miklos*^d with its fine Armenian church, *Udvarhely* with a population of 6,000 souls, *Szent Gyorgy*,^e *Miklos-Var* and others. *Maros-Vasarhely*, however, is an exception; it enjoys the privileges of a royal city, and the family of Teleky possess there a palace and a library of 60,000 volumes. The country of the *Szeklers* is mountainous, and although fertile in grain and fruit, many individuals in the district of *Czik* are compelled to migrate for a subsistence. The people, who are probably a branch of the *Patzinakites*, now speak the Hungarian. Accustomed to the occupations of war, living on the produce of their fields, they are still rude and ignorant;—some of them were guilty of the atrocities committed at *Rastadt*.

The other towns in Transylvania are inhabited by the Hungarians, either alone or conjointly with the Walachians and Saxons. *Clausenburg*, (Hung. *Kolos-Var*.) the second city in Transylvania, is peopled by 20,000 souls; it is the place at which the diets of the principality are usually held, and possesses a catholic university and two seminaries, the one belonging to the Calvinists, the other to the Socinians or Unitarians. Mathias Corvinus was born in the town. *Szamos-Falva* is protected by two citadels, and *Apafi-Falva* was the birth place of the Apafian princes, the last

monarchs of Transylvania. *Thorda* is inhabited by 6500 individuals, and is situated in the vicinity of a valuable salt mine. *Szent-Miklos* on the *Kokol* is defended by two castles. *Zalatna* or *Zlatna* is built in a fruitful country. *Enyed*, or, according to its German name, *Strasburg*, has a Calvinistic academy or gymnasium. *Torosko* and *Karas-Banya* are mining towns in a district rich in gold. The flourishing town of *Deva* is not far from the *Iron Gate* (Hung. *Vas-Kapa*.) a well-known pass that leads to the plains of *Temeswar*. *Karlsburg* is an important fortress near the large town of *Weissenburg*;^f in the fortress are the tombs of the Hunniades or *Corvini*; in the town are a college and an astronomical observatory. The court that presides over the mines^g in Transylvania was for a long time held at *Abrud-Banya* (Germ. *Gross-Schlatten*.) *Szamos-Uivar* (Germ. *Armenienstadt*.) is a colony of Armenians who appoint their own magistrates. Ruins and heaps of stones near *Gradichtie* mark the site of the ancient capital of *Dacia*, the *Sarmizagethusa* of the *Dacians*, and the *Ulpia Trajana* of the *Romans*.

Having concluded these topographical details, we shall make one or two observations on the name of the Carpathian mountains; that name, first mentioned in the writings of *Ptolemy*, was not unknown in the earliest geography of *Greece*. The mountainous island of *Karpathos* and the adjacent sea to which it gave name,^h are described in the poems of *Homer*; and it is worthy of remark, that the word has undergone the same metathesis in *Greek* and in the *Slavonic* dialects. Thus the *Greeks* wrote *Krapathos* instead of *Karpathos*, and the *Poles* and *Bohemians* say *Krapac*, which is pronounced *Krapats*, while the *Russians* and *Servians*, had they been inhabitants of these regions, would, from the nature of their language, have called them *Karpat*. The same term has perhaps some analogy to *chrebet*, mountains, in *Russian*, to *chrapien*, to climb, and *chropawy*, uneven, in *Polish*, and to the names of the *Chrobats*, *Chorwats*, and other nations. The *Greek* name of the *Riphæan* range might have been at one time synonymous with it. We do not affirm the truth of these statements, but many of them are very probable, and it is certain that some *Greek* traditions relative to the *Riphæan* mountains are not inapplicable to those in *Hungary* and *Transylvania*.

^a See the Memoir entitled, Der Verfassungs-Zustand der sächsischen nation in Siebenbürgen: Hermannstadt, 1790. There is an analysis of the above work, by *Schlötzer*, Staats-Anzeigen, (Political Journal,) vol. XVI. p. 468, &c.

^b Nothing is said of the higher ranks in the original, and indeed how could that be where hereditary distinctions are not allowed. It is merely said, that these stern and elevated institutions have yielded to the spirit of innovation in many particulars.—P.

^c The Germans were known to the Finns by the name of *Saxa-Lainen*; Germany was called *Saxan-Maa*. *Juslenii Fennici Lexici Tentamen*, p. 332.

^d Saint Michael.

^e Saint George.

^f *Busching*, II. 580. Recent geographers have confounded the fortress and the town.

^g "Chambre des mines."

^h *Mare Carpathium*.

BOOK III.

EUROPE.

Hungary concluded. Researches on the Origin of the Hungarians. General remarks on Hungary, and the Provinces annexed to it.

SOME account has already been given of the different nations subjected, united or added to Hungary. Little has hitherto been said concerning the origin or migrations of the Hungarians; it was thought best to defer the consideration of that subject, from the conviction that it is as intricate as any in the geography of nations.

The Hungarians entered the basin of the Theiss and the Danube by the plain now protected by the forts of *Ungh-Var* and *Munkatsch*; they invaded all the low country, and left the mountainous districts on the north and northwest to the Slovacks, once the subjects of the Moravian or *Mara-vanian* monarchy. They advanced on the southwest to the base of the Sîrian and Croatian mountains, and met in those regions Slavonic tribes, the Wends and Croatsians. The Hungarians were accustomed to a pastoral life, and possessed numerous flocks and herds, for which the large plains were well adapted. The same country had been successively subdued by the Pannonians, Sarmatians, Huns and Avars; but one, perhaps several Hungarian tribes, inhabited, probably at an early period, the mountains in the northwest of Transylvania, or the basin of the two Szamos,^a which was called Black Hungary in the year 1002, or at the time of its union with Hungary Proper. It has been seen that the Szeklers in the eastern part of Transylvania are a Hungarian or semi-Hungarian tribe, that have existed in their present country since the ninth century. The population of the whole nation, including the Cumanians and the *Iass* or *Jazyges*, amounts to four millions, of whom about 500,000 are settled in Transylvania.

The Hungarians are not a tall race of men, but active, muscular and robust; the people, the nobles, all the Magiars are renowned for martial valour and patience in enduring the fatigues of war. Their gaiety or mirth is not that of polished nations, but the effect of military habits and imperfect civilization.

The higher classes, who are not strangers to European refinement, possess immense revenues, and are attached, by their connexions or titles, to the court of Vienna. They imitate whatever may dazzle the multitude in the customs or fashions of the German, French and English nobles. They vie with each other in the pomp and magnificence of their feasts, and in the number of their retinue, affect patriotism in imitation of the English, ride in more costly carriages than the German courtiers, and distinguish themselves in

the diets by an energetic, or, at all events, a noisy opposition against the Austrian cabinet. But it is evident that they can gain nothing from a political change, and that there is really little difference between them and the Galician or Austrian nobility. The poorer nobles form a separate class, residing from choice or necessity in the country. They cultivate their farms, speak the national language, maintain the national privileges, and desire eagerly that they may be strengthened and increased. The most of them are protestants, and the protestants are divided into Calvinists and Lutherans.

All the Hungarian nobles, rich and poor, are distinguished by their frankness and hospitality. The lord of a wide domain, and the baron who cultivates his own acres, receive the stranger with the same cordiality. A traveller who can speak the language, might traverse the whole kingdom without entering an inn; but he must lay aside the magisterial gravity of the Germans, and the haughty reserve of the English,—he must drink wine out of the same glass as his host, partake of national dishes, and smoke a pipe after dinner. The Austrians are prejudiced against the Hungarians, and those who visit Hungary live in inns, which are in general very bad, a natural inconvenience in a country rarely frequented by travellers. Some German or half German towns may form an exception to the rule; in them the fashions of other lands prevail. But whoever remains with the Hungarians, accommodates himself to their customs, and converses with them in their language, is likely to become their friend; he may share in their joy,—their calamities are not concealed from him.

The peasantry form the great mass of the people; their costume is well fitted for a cold climate and a pastoral life. The *guba*, a large woollen cloak, defends them against the inclemencies of the season;^b and the *kalpak* or felt cap, which is now worn by horsemen and even by kings, still retains among the peasants its ancient Tartar or Finnic shape. A wallet hangs from the shoulder, and every man carries the *valaska*, a small hatchet with a long handle, an instrument which they wield dextrously.^{c d} No alteration has perhaps taken place in the dress of the *Iouhasz* or peasants since the time they fought in the armies of Attila.

They still retain their Tartar customs, and rarely if ever enter an inn; when travelling, they sleep in the open air, in their carts or near their flocks; at home, a bench or a heap of hay serves for a bed. The hogs, which supply them with food, are kept in the same house, and only sepa-

^a The great and the little Szamos or Samosch.

^b "Their dress consists of wide pantaloons, a vest, and the *guba*, a cloak made of a kind of cloth, wrought in exact imitation of a sheep skin."

^c Bredetzky, Beitrage, II. art. 8.

^d This circumstance applies in the original only to the semi-barbarous shepherds of the county of Szumegh.—P.

rated by a trellis from their owners. The epidemic diseases and fevers, so prevalent in Lower Hungary, may depend perhaps as much on the people's manner of living as on the climate; but whatever may be the cause of the diseases they are less fatal to the natives than to foreigners.

The gay and mirthful character of the Hungarians is evinced in their frequent and noisy meetings, and in their dances, some of which are intricate, others of a dramatic character. Their songs are not unlike what the Greeks called *amœba*; they consist of questions and answers well adapted to the condition of the persons who sing them. Although neither their dances nor their songs can be compared with those of Arcadia or the vales of Tempe, an Hungarian Theocritus might derive from them the materials of a pastoral poem.

It is to be regretted that so few facts, characteristic of the nation, can be collected from the writings of travellers; we shall endeavour to supply their want of information on the subject of the Magiar language, which is not, as has been affirmed, a *medley of all the Asiatic and European tongues*, or a *virgin without a mother and without kindred*. Its sister dialects may be traced from the shores of Lapland to the countries beyond the Uralian mountains, and along the banks of the Wolga. The language is allied to the Lapponic, Finnic, Permiak, Wogul, Tcheremisse, Tchuwashe and others that are included under the general name of the *Tchudish* Finnish or Uralian, a vague and inapplicable term, which has not hitherto been substituted by a better. Comenius, Strahlenberg and Fischer were not ignorant of the connexion between these tongues, but the fact was completely proved by Sainovics, who accompanied Hell the Jesuit, in his astronomical mission to Cape North in 1769. The Hungarian traveller observed with surprise that he could partly make out what the Laplanders said, and that they were often able to understand his meaning. Sainovics then began to study a Lapponic Grammar, written by Leem, a Dane, and some other works published in the north. He proved afterwards the identity of several vocables, showed that a striking resemblance subsisted between others, and concluded that the Hungarian and Lapponic dialects were the same;^a but his exaggerated hypothesis was reduced to its proper terms by M. Gyarmathy, another Hungarian.^b The analogy is not confined to words, but is observable in the grammatical forms, particularly in marking the declensions of substantives, the relations of possessive pronouns,

^a Sainovics, *Demonstratio idioma Hungarorum et Laponum idem esse*; Copenhagen, 1770. (This memoir is inserted in the *Memoirs of the Academy of Sciences of Copenhagen*, vol. X. 1770, p. 653.)

^b Gyarmathy, *Affinitas Linguæ Hungariæ cum linguæ finnicæ originis grammaticæ demonstrata*; Gœttingæ, 1799.

^c "The verb *to be*, in Lapponic, is almost identical with the verb *to come*, in Hungarian."

^d Asia polyglotta, Table of the Finnic languages, in the Atlas, and p. 188, &c.

^e We shall cite a few examples in which the Hungarian words are printed in italics, and the Scandinavian in Roman characters:—*ag*, a river; *aa*, id.: *aszoni*, a woman; *asynia*, a goddess or woman,* (Edda;) *alunni*, to sleep; *lugn*, luun, tranquillity, repose; *bor*, wine; *bior*, beer; *eg*, heaven; *ey*, everlasting, whence *eyglo*, sun, (Iotic;) *clet*, life; *elem*, I live; *el*, to beget, to nourish; *essa*, rain; *æse*, to pour; *elein*, an elk; *elend*, in German; *els*, in Danish; *estwe*, evening; *sol-est*, sunset, in Jutlandic (Normanno-Iotic;) *fa*, a tree; *vallarfax*, a forest, properly, the mane of hills, (Edda;) comp. *fagus*, Lat. and *fayau*, Fr. beech; *feld*, the earth; *fold*, id. (Ase;) *felsæ* and *fell*, aloft, lofty; *fiell*, a mountain; *feyer*, white; *fiagr*, in Scandinavian; hence the English word, fair; *fekete*, black; *feigr* and *feikr*, pale, dying, cowardly, (Solarliod, str. 36;) *feri*, a man; *fir*, id. (Edda;) † *gæs*, fog; *guse*, id. in hav-guse, sea-fog, in Jutlandic; *hay*, hair; *haar*, id.; *had*, war; *had*, hatred, a feud; *hegy*, a mountain; *heei*, a hill, (Dan. ;) *heves*,

* "Femme ase."

† This is the Latin, *vir*, Celtic, *fear*, a man.—P.

and the conjunctions and interrogatives, by *suffixes* or syllables added to the end of words.^c A similar affinity has been discovered by M. Klaproth with the dialects of the Ostiaks of Berezow, and of other tribes between the Ural mountains and the river Obi.^d The ancient *Iougoria* was peopled by these tribes, and their descendants have retained many Hungarian words, which are unknown to the more polished Finnic nations. M. Klaproth has collected several of the words used by the Samoiedes, which correspond with others in Hungarian. The connexion between the Hungarian and the Turkish is not nearly so remarkable as its grammatical resemblance with the Armenian. The plural nominatives in *k* are formed in the two languages in the same manner, and produce the same cacophony; the dative plural of the Hungarian resembles the *instrumental* case of the Armenian, and the perpetual repetition of one of the harshest consonants is more grating to the ear in the Hungarian than in the Armenian verb. The words, it is admitted, are very different; how comes it then, that the grammatical structure is so much alike, particularly as it accords ill with a language in other respects so harmonious as the Hungarian? We have lastly to mention a connexion hitherto almost unknown, that subsists between the Hungarian and Scandinavian, which have been considered wholly foreign to one another; we have, however, been able to discover a number of words common to both, and such as could not have been introduced by civilization or in later times, but in those early ages, when the Huns, Goths, Iotes, Ase and Magiars assembled round the altars of Odin.^e Thus the Hungarian, though connected with other tongues, is not on that account less interesting. It is harmonious, rich, flexible, and admirably adapted to the natural eloquence of the people who speak it. Several literary and scientific journals are at present published in the country; historians and poets might be enumerated among the Hungarian writers. It is the ordinary language of the diet; the Austrians, it is true, wish to continue the Latin, which is said to have been introduced for the better accommodation of the German and Slavonian inhabitants.

The nobles may be divided into two classes, the lords of extensive domains and others who cultivate their farms.^f The priesthood is composed of archbishops, bishops, abbots, deans and commendataries.^g The inhabitants of the free and royal towns and the privileged burghs, the tribes of the Cumanians and Jazyges, and the members of some

warm; *hver*, a warm spring, (Icelandic;) *hold*, the moon; *hvel*, a wheel or circle, figurat. the moon, (Álvismál, str. 14;) *iol*, good; *iont*, kindly, (Jut. ;) *level*, a leaf; *lev*, foliage; *magas*, high, great; *magt*, megin, power, &c.; *menny*, the heavens, the firmament; *mœnning*, the top of a roof, (Jut. ;) *nyak*, the neck; *nakke*, id.; *oesz*, autumn; *œest*, autumn, harvest; *szarp*, a horn; *skaur*, a peak, † and *skarp*, sharp; *szulum*, I speak; *thula*, a discourse, and *thulr*, an orator; *tel*, winter; *tel* and *tiela*, land covered with ice; § *var*, a strong castle; *varde*, a high and fortified station. Several German words, introduced into the Hungarian at a later period, are collected in the *Mithridates of Adelung*.

‡ "Head, eminence."

§ "Glace dans la terre."

f "The Hungarian nobles are divided into the *magnats* or great dignitaries, the gentlemen who possess landed property (*nobles possessionnés*), and the gentlemen without landed property (*armalistes*)." The nobility consist of the barons of the kingdom, or officers of state, and the order of Magnats (*liberi barones*).|| Among the nobility are also included all gentlemen who possess landed property, as the individual doing so is *ipso facto* ennobled. The king has also the power of creating nobles.—*Ed. Encyc.*

|| Corresponding to the German barons (*freyherrn*, free lords).—P.

g "— archbishops, bishops, commendatory abbots, and deans of chapters." The dignified clergy of the Hungarian catholic church are 3 archbishops, 14 diocesan bishops and 16 titular bishops, 16 metropolitan chapters and 2 collegiate chapters, 178 beneficed canons and 79 honorary canons, one archabbot and 146 abbots, 19 grand provosts and 89 provosts. The inferior clergy consist of 4189 pastors and 3059 monks.—P.

petty corporations are represented. The body politic, or what is styled in the language of the diet, the Hungarian nation, *Populus Hungaricus*, is made up of these classes; they have the right of electing a king if the reigning family become extinct, and possess in common with their sovereign the power of making laws.^a All the taxes are regulated in the diets, which ought legally to be assembled every three years. The rest of the people, or the *Misera contribuens plebs*, pay imposts, but enjoy no political privileges. The monarch may make peace or war, but he must first hear the opinion of the nation;^b he can command the nobles to take up arms on any emergence,^c but every extraordinary contribution must be assented to by the diet. The king swears to maintain the constitution, and signs the diploma of King Andrew, but protests against the article which renders it lawful for the Hungarians to have recourse to arms, if their privileges be infringed.^d The sovereign is obliged to execute the decisions of the judicial courts, and it is unlawful for him to punish or impose a penalty on any individual, unless he be legally tried. He must defend the kingdom against every hostile invasion, and restore such of its ancient provinces as may be gained by the chance of war; in short, Hungary is an independent and mixed monarchy.

The Hungarian diet consists of two chambers or *tables*, each subdivided into two orders.^e The nobles^f and the clergy are the members of the one; the deputies of the 52 counties or *varmegyes*, and the representatives of the free towns sit in the other. Each county sends two members to the diet, and they are elected by the nobles. The absent nobles (*magnats*) avail themselves of an ancient abuse, and send substitutes who represent them in the lower house. The diet is divided into four classes or *orders*; the members vote in the class to which they belong, and all questions are carried or rejected in each order by a majority. The deputies must act conformably to the instruction of their constituents.

The different classes in the nation enjoy different privileges. The noble as *citizen of the state*, may possess land in any part of the kingdom, but the burgess, as citizen of a town, can only acquire real property within its jurisdiction. When the heirs male of a domain are extinct, it returns to the crown,^g but so long as these heirs remain, any of them, like the manorial lords in Norway, can buy back the land sold by their ancestors at the price given for it; thus the improvement of agriculture and the circulation of capital are impeded by an absurd law of the northern states. The nobles cannot be arrested without the warrant of a judge, and then only for capital crimes. They are exempt from every ordinary contribution, and are the only class in the kingdom eligible to every office in the state.^h

The government of the counties is in a great measure

^a When a motion has passed the diet, the king has the power of confirming or rejecting it, his approbation being necessary to give it the force of a law.—P.

^b Diploma granted by Leopold, art. 13. Articles of 1608, art. 2.

^c "He can order the levy *en masse* of the nobility (*insurrectio*.)"

^d Diploma Andrew, art. 31. Quod si vero nos, &c.

^e The four orders of the Diet are: the prelates, the lay barons and the *magnats*, the representatives of the counties, and the representatives of the free cities. The two chambers are: the chamber of *magnats*, in which the palatine presides, composed of the prelates, the barons of the kingdom, the governors of counties, and all the counts and barons who are members of the diet; and the chamber of states, in which the grand judge presides, consisting of all the other deputies.—*Ed. Encyc.*

^f "Magnats."

^g The king has a right to the property of all deceased nobles who have died without heirs, or who have been convicted of treason or rebellion.—P.

independent of the crown. Thirteen palatines or *ispans* possess their dignities by hereditary right, and the other officers in the counties are elected and paid by the provincial *congregations* or assemblies. The towns have their municipal administration and supreme courts. Every office must be filled by a native; foreigners can only be naturalized by the diet.

The Hungarian peasants, the descendants of wandering shepherds, at first cultivated the ground for hire, and retained their freedom; they might quit the land of one lord and settle on the domain of another; that privilege was confirmed by many enactments,ⁱ but personal and perpetual servitude was the punishment inflicted on the revolted peasantry. Frequent opportunities were not wanting of enforcing the law and increasing the number of bondsmen on the estates of the nobles during the rebellions in the reign of Uladislaus. The great majority of the country people remained however in the condition of hired labourers or farmers. Many entered into contracts by which they agreed to till the ground, some for their maintenance, others for a stipulated sum, and it was unlawful for them to leave the land until the advances made by the proprietors had been paid, nor could they be turned out of their farms until they were indemnified for their labour.^k Thus the dependence was reciprocal, and the peasants in different countries of Europe were exposed to privations unknown to the servants or tenantry of an upright Hungarian landlord. But it frequently happened that the contracts were incorrectly interpreted from the vague manner in which the mutual obligations were specified. The labour, which according to this system supersedes monied rent, is regulated and determined in the *Urbarium*, a rural code published under the auspices of Mary Theresa in 1764.^l Personal servitude was abolished by a decree of Joseph II. in 1795, and the diet re-established under Leopold II. in the exercise of its privileges, ratified generously all the enactments, of which the object was to protect the peasantry, or to better their condition. It did not sanction the right of acquiring real property granted to every Hungarian by Joseph II.; much less did it agree to equalize the imposts on all the lands. "These differences," said the nobles, "constitute our privileges; they may be taken away from any amongst us guilty of a capital crime, but what crime have we committed? The kingdom of Hungary is as independent of Austria, as England is of Hanover. We obey no emperor, we only recognize our king. Joseph II. is not our king; he has not been crowned, he has not taken the oaths, he is an usurper."^m Such were the *respectful* remonstrances that the philosophic despot heard on his death-bed; he revoked his decrees, abolished his reforms, and gave up his plan in despair. But the nation, now in the full possession of all its prerogatives, may perhaps consider the evil consequences

^h The privileges of the nobility consist in the right of assisting at the deliberations of the legal assemblies of the county wherein they dwell or possess property, whatever be the subject under consideration; the inviolability of their persons from arrest, unless in the cases of felony, highway robbery, and some other crimes; the sole right of possessing lands, with the seigniorial power over their vassals; and the exemption from all contributions and imposts.—*Ed. Encyc.*

ⁱ "Jus liberæ emigrationis." Decree of Sigismund, 1405; of Ferdinand the First, in 1541 and 1550; of Maximilian the First, in 1566.

^k The vassals hold their farms on condition of rendering personal service, and paying the ninth part of the produce and other dues. They however hold them only from term to term, and must resign them when proper warning has been given.—P.

^l Provisionally confirmed by the diet, 1791.—P.

^m Schlotzer, Staats Anzeigen, vol. XIV. p. 121, XV. 336, &c.

of a system by which landed property is exclusively confined to nobles or *citizens of the state*; it may at last learn how much the value of land and its products has been increased in other countries, where the husbandmen enjoy civil rights, and have the interest of property in the fields that they labour. The nobles boast of imitating the English, and it can hardly be supposed that the abuses committed by their stewards, the vexatious oppression of village justices, and the arbitrary exactions of tax collectors, are concealed from them. It is certain that the rights and privileges which place them so high above all their neighbours, might be rendered more durable, if they were extended to every order of the community.

The Hungarians are in possession of religious liberty; more than a half of the population profess the Catholic faith, and the dignitaries of that church enjoy many valuable political privileges; places are assigned to them in the diets, and they are considered in those assemblies the great *pillars* of the court party. The archbishop of Gran possesses an annual revenue of about £30,000; the metropolitan of Kolocza has not more than a seventh part of that sum. The income of the bishop of Erlau is about £20,000, the see of Gross-Waradin is worth nearly £8400, and the average annual value of the dioceses is from £4000 to £4200.^a It may be easily believed that the first families in the country canvass for these offices. The king passed a law by which the bishopric of Erlau was set apart for the fourth son of the reigning prince. Many bishops are governors of the provinces in which they reside, and others possess monopolies on wine and salt. But although the Catholic clergy have so many advantages, they are not actuated by Christian charity towards the other sects. Enemies of religious freedom, they oppose every privilege claimed by heretics; but it must not be imagined that they are sufficiently powerful to oppress them, or destroy their lawful rights. The Protestants are mostly Calvinists; among those of that persuasion are many noble families, and the doctrines of the Genevese reformer are preached in every part of the kingdom.^b The Lutheran creed is chiefly confined to the miners and German artisans, and exists in all the rigour of the sixteenth century. The Lutheran ministers cannot conceal their animosity against the Calvinistic preachers. The Catholic party avails itself of their strifes and contentions, and the remonstrances of Protestants to the diet are as numerous and ineffectual as the Catholic petitions that are presented to the British parliament.^c It is evident from the sermons of the priests, the diocesan charges and the public edicts of the bishops, that they deplore the spread of evangelical doctrines. The Greek or eastern church by which the seeds of Christianity were first sown in Hungary, has been for a long time in a state of decay; more than a third of its members have apostatized to the Roman faith, but it still retains a majority of the inhabitants in the most southern provinces. The united Greek rites are observed by the Rusniacs and the Walachians in their neighbourhood.

Transylvania is represented by a separate diet; its members are the *magnats*, the deputies of the Hungarian nobility, those of the Szeklers, (all of whom without distinction of birth are eligible,) and those of the free Saxon nation.

The Catholics, Calvinists and Lutherans are legally recognized, and an Unitarian church, the only one in the world, which has existed since the time of Socinus, is acknowledged by law in Transylvania. Most of the Walachians, who compose the greater part of the inhabitants in the province, profess the eastern Greek religion, but from some strange caprice their church is only tolerated.

The institutions of Hungary retain all the vigour and all the inflexibility of the middle ages. Changes or improvements cannot without much difficulty be introduced. Little or no alteration has been made in the universities, gymnasia or schools. The influence of an ignorant priesthood is exerted in all the catholic seminaries, and monks have their doubts on the propriety of using astronomical instruments made by heretics. The danger of innovation, the fear of misapplying or of eventually losing the funds left by pious individuals for benevolent purposes, paralyse the efforts of the protestants;—still knowledge advances, the Hungarian patriots are animated by a noble zeal, the poor are instructed without the aid, sometimes in defiance of authority, improvements made in other countries are adopted, and libraries are formed for the use of the people.

If industry be still in its infancy, it must be imputed to long intellectual darkness, and to the restrictions imposed by corporations on individual talent. If articles of primary necessity be excepted, and to these may be added *gubas* or woollen cloaks, *zischmas* or Hungarian boots, tobacco pipes and chaplets, the other products of industry are few and insignificant; the cloth, glass, and earthen-ware of Hungary are much inferior to the same articles in Austria. But good soap is made in the country, and the dressing of leather furnishes employment to a great many persons. The linen manufactured by the burgesses in Upper Hungary proves the superiority of the German artisans, and a very lucrative trade in that article is carried on in the county of Zips.^d The climate of Hungary is well adapted for silk, but the quantity produced is inconsiderable. We have already taken notice of the brandy, maraschino and other spirituous liquors made in Slavonia and Dalmatia; the Slovacks are equally skilled in extracting balsams and odiferous resins from different plants. The workmen and individuals who live by trades in Hungary, amount, according to a recent calculation, to 40,000, but the number is daily increasing.

The natural productions of the country, its oxen, corn, wine, wool and metals, afford the materials of an extensive commerce, but there is no sure outlet for it except Austria and the provinces attached to the Austrian empire. Thus the wines are sent to Poland, and the corn to Italy. The Hungarians have few commercial dealings with their neighbours. The Galicians do not require wheat or cattle, and only a little wine; the Turks are well enough provided with wine and cattle in their own country, while the Austrians have fettered the Hungarian corn trade, and the people can only export a small quantity of grain. The distance and the state of the roads between a great part of Hungary and Trieste preclude the interchange of commodities. The carriage, the duties, and the other expenses, are almost equal to the value of the merchandise. It may be urged that Hungary is watered by many fine rivers; unfortunately

^a "60 to 100,000 francs," 2500*l.* to about 4200*l.*—P.

^b "The profession of faith, according to the reforms of Calvin, is extensively embraced by the Hungarian nobility; it is publicly preached, wherever a sufficient number of parishioners unite to support its worship."

^c Eng. translator, 1827. "Mais aujourd'hui, nous avons changé tout cela."—P.

^d "To the amount of 6 millions florins."

however, their course is contrary to the direction of its commerce; had the Danube flowed westwards, or had its navigation been free and not obstructed by the Turks, additional channels might have been created for the produce of labour. The conquest of Bosnia, by opening the communication with Venetian Dalmatia, might be the means of increasing the commerce of Hungary. But of all these impediments, the restrictions imposed by the Austrians are the most effectual. The Austrians, unable to make the Hungarians relinquish their freedom or national privileges, console themselves by treating them as foreigners in all the custom houses throughout the empire.

Hungary is considered by Austria only as its depot of raw materials, and an outlet for its manufactures. In conformity to that principle, the Hungarian is not only forced to purchase different articles of Austrian manufacture, which he might have at a cheaper rate and of a better quality in other countries, but when he sends his own goods to Vienna, he must pay higher and more exorbitant duties than those exacted from the Poles. It is not difficult to show the fatal consequences of so bad a system. The Hungarians see their rich pastures covered with cattle, their cellars filled with wine, and their granaries stored with corn, but as these articles must be sold for whatever price is put upon them at Vienna, they are not solicitous of improving the agriculture of the country. The noble is satisfied if his revenue cover his expenditure, and never thinks of making his land more productive. The peasant labours merely to provide for his immediate wants. The Hungarian patriots accuse the reigning family of ingratitude to a people that have often been their only defence, and whose love of independence is never formidable but when they are unjustly treated. The Austrians hear such complaints and reply to them. "Our monarchy consists of several federate states, and each retains its privileges, rights and institutions. If these concessions were granted to Hungary, a country so highly favoured by nature, all the wealth and resources of the empire might be concentrated in a single province." The exports from Hungary amount to 24,000,000 florins, its imports to 18,000,000.^a The internal taxation, which the Austrian financiers think much too low, is regulated by the diet. The taxes paid by the farmers or peasantry are oppressive; they are said to be about 5,000,000 florins.^b The royal duties on salt yield 6,000,000, the net produce of the customs is equal to 4,000,000, and the total revenue is more than 20,000,000.

The military establishment of Hungary is made up of 46,000 infantry and 17,000 hussars; but it might raise on any emergence a hundred thousand good troops, and to that number Transylvania might add twenty thousand. A long line of frontier from Dalmatia to Bukowine, is guarded by a sort of *perpetual camp*; these districts are called the *military limits*; all the inhabitants are soldiers and at the same time husbandmen. The lands which they cultivate are hereditary possessions, that cannot be subdivided.^d A

^a "The exports of Hungary are from 20 to 24,000,000 florins, and the imports only three fourths that value."

^b "The property tax (*impôt foncier*), which is only burdensome to the peasantry, scarcely exceeds 5,000,000 florins."

^c "A long strip of territory from Dalmatia to Bukowine is organized as a perpetual camp."

^d "They have hereditary possession of the lands which they cultivate, part of which are *family estates* which cannot be divided, and part *free lands*."

^e "The property (*biens*) and even the flocks of a *house* or community are held in common; individuals possess only money and moveables."

family or a number of allied families forms a *house* or *society*, in which the oldest member exercises, under the title of *gospodar*, a patriarchal power. The money, flocks and moveables of a society are held in common by all the members;^e and if a girl marries any one of a different *house* than that to which she belongs, she can claim no more than a wedding garment^f for her dower. Every member must contribute by his labour to the common stock. The number of merchants, or rather retailers, and of priests, is limited by the laws, and whoever absents himself without the permission of his *gospodar* is considered a deserter. The people are clever, sprightly, but ill-informed, and the nature of their military government is unfavourable to civilization. The country forms a part of Hungary or Transylvania; for that reason, the towns in the military limits have been mentioned in our account of these provinces.

It is not easy to trace the origin of the Hungarians, or to discover from what part of Asia or of Europe they came to the banks of the Danube. The Hungarian language is an undoubted proof that the mass of the nation consisted of *Finno-Uralian* tribes; that part of the same language which is not connected with the Finnic dialects, might have proceeded from some original peculiarity in the primitive stock of the Magiar, or have been introduced by other nations, such as the Turks, Mongols or Huns, who mixed with the Magiars. All these opinions have been ably supported.^g Some writers have penetrated into the mysterious east, and one Hungarian has maintained that his countrymen are of Egyptian origin;^h he might have concluded with equal probability that they have migrated from the *Maghada*, on the banks of the Ganges, or from the country of the *Magi* in Persia. Leaving these doubtful conjectures, we shall endeavour to draw some inferences, which have not hitherto been deduced, from the facts stated by historians and geographers concerning the early migrations of the Hungarians or Magiars.

The *Ouni*ⁱ inhabited the northern shores of the Caspian sea in the first century of the Christian era, and a hundred years afterwards the *Chouni*^j were settled on the banks of the Borysthenes. These people were in all probability the same as the Huns who rendered themselves famous in the fourth and fifth centuries; they occupied the same countries, they were distinguished by the same names. Of a different origin from the Goths, they waged continual war with the fair Alani and the Ostrogoths. The Huns, according to Jornandes, the Herodotus of the Goths, were sprung from the demons of the forests and Gothic sorceresses,^k driven from their homes, and exiled by their countrymen. If this tradition be interpreted, it means that the Huns lived in forests, and were addicted to magic. Such was the character of the Finns, as given by Tacitus and the Sagas, and if there be a well-attested fact in the semi-fabulous history of the Scandinavians, the same arts were practised by the people that inhabited forests and caverns in the countries to the northeast of the Goths. The Huns were not

^f "Trousseau," clothes, jewels, linen, &c. allowed to the bride in marriage.

^g Gyarmathy, Sainovics, quoted above. Bel, de vera origine Hunnorum, Avar. et Hungar. Leipzig, 1757. Fischer, Questions Petropolit. 1770. For their Turkish origin, see Desguignes, Histoire des Huns; Pray, Annales Hunnorum, dissertatio quarta.

^h Thomæ, Conjectura de origine, prima sede et migrationibus Hunnorum, Pesth, 1802.

ⁱ *Unni, Chuni*.

^k *Aliarumnae*; the Scandinavian *alruna*.

Slavonians, since the latter revolted and took up arms against them; unless then they be of a different origin from any of these people, they must be considered a branch of the Finns or Tchudes. The descriptions left by historians of their personal deformities are more illustrative of the Mongols than the Tchudes; but some allowance must be made for the terror and alarm excited by the devastating Huns, and, at all events, these historical statements are only applicable to one dominant Mongol tribe, ruling over many others composed of Finnic vassals. Whatever is known concerning the early migrations of the Huns and Hungarians, may in this way be easily explained. The rapid power of the first cannot be attributed to a sudden, mysterious and inconceivable invasion, but to a union of all the ancient tribes in Russia against the fair sons of Wodin, who branded their enemies with the reproachful epithet of dogs or *hunds*, a corruption of their national name, *khun* or people. It is not wonderful if many hordes remained after the death of Attila, in the provinces of his empire. Jornandes mentions the Hunni-Var in the northeast of Hungary,^a which may be considered the commencement of the Hungarian nation. The Magiars who were sent for in the eighth century to combat the Moravians, found the country peopled by their brethren. Thus it is easy to account for the immense number of these barbarians, which cannot be explained according to any other hypothesis. The Sabiri, another horde of the same race, remained on the north of Caucasus. A Byzantine writer who mentions their destructive invasions in Asia, calls them the *Samen*, which corresponds with the word *Suomen*, the name given by all the Finnic nations to the countries they inhabit.^b The assertion of another Byzantine author is not improbable; according to him, the Avars consisted chiefly of *Ougres* or Hungarians, that made up so many vassal tribes.^c The *Hunugari* were only *Ougres* or Hungarians, who were vassals of the Huns; their descendants, the inhabitants of *Iougoria*, a country between the Uralian mountains and the river Obi, were subdued by the Russians of Novgorod about the year 1150. Many Hungarian words are still retained in the dialects of the Wogulitzes and Ostiaks, the present inhabitants.^d The Huns, although of Finnic origin, were connected with the Turks of Mount Altai; it cannot now be ascertained whether they conquered or were subdued by that people; but if they formed part of the Turkish empire or *Tu-Kiou*, they must have been denominated Turks. Hence the mixed nature of their language, and the name applied to them by the Byzantine historians;^e and hence the Scandinavian traditions concerning the Turks who followed Odin, and who appear to have been identical with the Huns, a horde of whom, it is said, penetrated into Scandinavia.^f The Turkey or *Tyrkland* of the Icelandic writers was situated to the south and southeast of *Biarmaland* or *Permia* and the high mountains that limit great *Svithiod*.^g The great Hungary, described by travellers of the middle ages, and particularly by Rubruquis, included the countries on the southern Uralian

mountains; but at an unknown epoch, anterior to the power of the Turks of Altai, primitive Hungary must have extended very far to the north and southeast. The Iougoria, mentioned in Russian history, formed a part of the country. The town of *Egregia* or *Egrygaya*, the stumbling block of the commentators on Marco Polo, bears an Hungarian name, which is at present common to several towns in the kingdom.

The Ougres, Ungri or Hungarians were then a branch of the Uralian race, which for want of a better name, has been termed Finnic, and at the same time, of the Hunnic confederacy; in the same manner the Saxons are of Teutonic origin, but are included among the Germans, from their historical connexions with that people.^h

It may be worth while to observe if the Hungarian traditions accord with the conclusions derived from the testimony of historians and geographers.

We learn from the old national songs of the Magiars that three countries are situated in the heart of Scythia, *Dent* or *Dentu*, *Moger* or *Magar*, and *Bostard*. The inhabitants of these regions are clothed in ermine, gold and silver are as common as iron, the channels of the rivers are covered with precious stones. *Magog*, the eastern neighbour of *Gog*, was a grandson of *Japheth*, and the first king of Scythia. According to a different tradition, *Magor* and *Hunor*,ⁱ the first Scythian monarchs, left a hundred and eight descendants, the founders of as many tribes. *Ethele* or *Attila* was sprung from *Japheth*, and *Ugek* from *Attila*. The second migration of the Hungarians from Scythia took place under *Almus*, the son of *Ugek*, whose birth was foretold in a dream;^k the first happened in the time of *Attila*.^l A redundant population was the cause of these migrations. Two thousand men departed from every one of the 108 tribes, and the total number amounted to 216,000, who were divided into seven armies or hordes, each of which was made up of 30,857 warriors, commanded by seven princes or dukes, the *Heiou Moger* or the seven Magiars. The names of the leaders, which are still preserved, were *Almus*, *Eleud*, *Kundu*, *Ound*, *Tosu*, *Tuba* and *Tuhutum*.^m The Hungarians passed the Wolga, near the town of *Tulbora*, and marched on *Susdal*, which might have been the same as *Susat*, the ancient capital of *Attila's* empire. They removed from that place and settled in *Lebedias*, probably in the neighbourhood of *Lebedian*, a town in the government of *Voronez*ⁿ (*Woronesch*.) They were invited from their new territory by king *Arnulphus* of Germany, to combat *Sviatopolk*, king of great *Moravia*. Duke *Almus* put himself at the head of an army, passed through the country of the Slavonians of *Kiovia* (*Kiow*) defeated the troops that opposed him, and reached the confines of Hungary by the Russian principality of *Lodomiria* or *Wladimir*. *Arpad*, his son, crossed the Carpathian mountains, and invaded the country on the Upper *Theiss*, where the fortress of *Ungh-Var* was erected in 884. But according to another account the Hungarians had already entered *Transylvania* in 862,

^a Jornandes, de Rebus Gothicis. Bel, Prodrom. Hung. l. II. sect. I.

^b Theophanes, Corp. Byzant. VI. p. 110, 119. Malala calls them *Ugni*. Ibid. XXIV. part II. p. 44.

^c Theophylact, Corp. Byzant. III. p. 259. lib. VII. cap. 8.

^d The Wogulitzes and Ostiaks retain more Hungarian words than any other Finnish tribes. See *Klaproth*, as quoted p. 468.

^e The Byzantine writers call them *Turks*.

^f *Suhm*, Origine des peuples du Nord, II. 60, 72, 381. *Odin*, 87.

^g *Svithiod hin Mikla*. This name shall be more fully treated of in another part of the work.

^h This does not imply that the Teutons and Germans are not the same

people, but that the former is the ethnographical, and the latter the political name.—P.

ⁱ Their names signify literally lords (*or* or *our*) of the Magiars and Huns.

^k Such is the signification of his name.—(M. B.)—P.

^l *Anonymus* *Belæ*, Not. cap. 1, 3, 5, 11, 14, 16, 44, 46. *Schwandtner*, Scriptor, rer. Hungar. t. I. *Thurocz*, Chronica Hung. Pray, Annales Hunn. Avar. et Hungar. p. 342.

^m Some of these names denote the tribes. *Kunda* and *Oundja* are well known rivers. *Tuba* is a considerable feeder of the *Jenisii*. But *Eleud* is not to be confounded with the *Eleuts* or *Oeloet*; the word may be otherwise explained in the Hungarian language.

ⁿ "Voroneje."

and were driven from it in 889 by the Patzinakites or Petchenegues. These tribes, however, were not perhaps under the dominion of Arpad.

Such is the history of the Hungarian migrations, according to their own traditions, which unfortunately are disregarded and rejected by the monks, the only persons who could have preserved them entire. The conclusions at which we formerly arrived, are not invalidated by what has now been stated. The three regions, *Dentu*, *Mager* and *Bostard*, correspond to *Tenduch*, where reigned a prince named Ugh Khan, or king of the Ughs, and which is perhaps the same as *Turfan*, to Great Hungary or the earliest known country of the *Magiars*, and to the country of the Baschkirs or *Baschkurt*, the *Pascatir* of Rubruquis. It follows from these statements that the Hungarians must have occupied at one time a very extensive country, but the details are not for that reason incorrect; on the contrary, the names of the seven princes and the seven tribes, together with other facts, appear to corroborate them. When compared with the different historians, and combined with our hypothesis concerning the Huns and Finns, the migration of the Hungarians across Russia, then peopled by hordes of the same race, and their settlement in the Hunni-Var, among the remains of the Huns, and perhaps of the Avars, cannot be thought improbable or fabulous. The duration and the epoch of the migration before the year 800, may not be accurately known; but it may be maintained, without inquiring whether the early exploits of the Huns under Attila were confounded with the achievements of the Magiars, that the latter possessed Lebedias longer than is generally believed. The passages in Constantine Porphyrogenitus concerning the relative situation of the *Mazares*, *Chazares*, Petchenegues and Russians, in the early part of the tenth century, are very obscure; still according to the text, and exclusively of every arbitrary correction, they prove, in our opinion, that the Magiars inhabited the banks of the Upper Don sometime after the Ougres, whom the Byzantines confounded with the Turks, were settled in the Hunni-Var. As we cannot enter into the long discussions to which the subject might lead, it only remains for us to state briefly the causes or events by which the limits of Hungary have at different times been altered.

The irruptions of the Hungarians into Germany and Italy were finally checked by the victories of Henry I. at Merseburg in 933, and of Otho I. at Augsburg in 955. The Hungarians were then a semi-barbarous people, addicted to superstition and magic, like the Finns; eating horse flesh at their religious feasts, like the Scandinavians. The names of their divinities are now unknown.

Christianity began to be established about the year 973; the people imitated the example of their prince Gheysa, whose son Stephen was baptized in 983, and assumed the title of king in 1000; he was ranked after his death among the number of the saints. Twenty princes, descendants of St. Stephen, were successively kings of Hungary. One of them, perhaps the most illustrious, was Ladislaus the holy,^a who conquered Croatia, Slavonia and Dalmatia. Transylvania was civilized by numerous German colonies in the reign of Gheysa the Second. Bela the Third made himself master of Galicia, Servia, and the dutchy of Chulm in Dalmatia. Andrew the Second passed a law in 1222, by which the Hungarians might take up arms against their

kings if they infringed their just rights.^b The nation was compelled to renounce that privilege in 1688. Bulgaria became tributary to Hungary under the same dynasty, but in the last reigns of these princes, Hungary was exposed to the invasions of the Mongols. The reigning house^c became extinct in 1301, and twelve kings of different families ruled afterwards over Hungary. Lewis the First, one of these monarchs, united to his dominions the whole of Dalmatia, which was more than once retaken by the Venetians; he conquered Lodomiria or Red Russia, Servia, Bulgaria, Walachia and Moldavia. The same sovereign was elected king of Poland, and the Hungarian monarchy, under his reign, was equal, if not greater in extent, than the present Austrian empire. His successors were unable to retain his dominions. Sigismund, defeated by the Turks at Nicopolis in 1396, ceded to Poland the provinces on the east of the Carpathians. Mathias Corvinus, who occupies a distinguished place in Hungarian history, wrested Silesia and Moravia from the Bohemians. Lewis the Second lost the battle of Mohacz, and was slain by the Turks. The kingdom, afterwards invaded almost on every side by the Turks, became a field of battle in which Christian and Mussulman armies massacred each other during a century. To regain Transylvania, separated from Hungary after the death of Lewis the Second in 1526, was the pretext for these wars. Luther's reformation, adopted by some, and proscribed by others, was the cause of fresh commotions and civil broils. It was the object of a numerous party to raise John Zapolya, the *vainoide* of Transylvania, to the Hungarian throne; and the war between him and Ferdinand of Austria, his rival, was terminated by a treaty, which guaranteed to Zapolya the possession of Transylvania and a great part of Hungary. It had ever been the policy of the Turks to support the Transylvanian princes against the Austro-Hungarian kings. The illustrious men who figured in these troublous times, and displayed all the great qualities and defects of their nation, were the two Bathorys, Bethlem Gabor, Stephen Botskai, the conqueror of Upper Hungary, Gabriel Bethlem, who for some time was in possession of the whole of Hungary, the two Rakotskys, the second of whom was long the terror of the Austrians and Poles, and Tekeli, who after having achieved heroic exploits, died an exile at Brusa in Natolia. The slow and methodical policy of Austria triumphed in 1713, and the hereditary rights of its emperors have since that time been acknowledged. The attempts to reconquer Servia and Walachia produced no lasting change; and the Polish provinces, though claimed and retaken in the name of Hungary, form a separate kingdom.

Synoptical Table of the Political and Military divisions of Hungary, &c.

I. Kingdom of Hungary. (*Madjar Orszag.*)

- | | |
|------------------------------|--|
| A. Western or Lower Hungary. | { 1. Cis-Danubian Circle on the east of the Danube.
2. Trans-Danubian circle on the west of the Danube. |
| B. Eastern or Upper Hungary. | |

Counties. *Gespanschaft* (Ger.) *Varmegye* (Hung.) *Stolica*^d (Slav.) *Comitatus* (official Latin.)

^a "Ladislaus le Saint"—St. Ladislaus, canonized by Celestine III. in 1198.

^b "The right of insurrection."

VOL. II.—Nos. 97 & 98.

^c "The Hungarian dynasty."

^d Pronounced *Stolitzza*.

I. CIS-DANUBIAN CIRCLE.

German Names.	Hungarian Names.	Statistical details.	
G. of Arwe.	V. of Arva. ^a	Free and Royal towns, ^e 23	
Baatsch.	Bacs.	Episcopal towns, ^e 3	
Barsch.	Bars. ^b	Burghs, ^e 176	
Hont.	Hont.	Villages and hamlets, 2,507	
Láplau.	Lápto.	Prædia, ^f 593	
Neograd.	Nograd.	Houses, 267,941	
Neutra.	Nyitra.	Communes or districts classed according to the different nations.	
Pesth.	Pest.		
Presburg.	Posony.		
Gran.	Esztergom. ^c		
Thurotz.	Turocz.		
Trentschin.	Trencsén.		
Sohl.	Zolyom. ^d		
			Slavonians, 1,840
			Hungarians, 655
			Germans, 136
		Servians, 74	
		Rusniacs, 2	
		Walachians, 2	

2. TRANS-DANUBIAN CIRCLE.

G. of Stuhlweissenburg.	V. of Feyer. ^e	Free and Royal towns, 8
Barania.	Baranya.	Episcopal towns, 2
Eisenburg.	Vas. ^b	Burghs, 190
Komorn.	Komarom.	Villages and hamlets, 2,571
Raab.	Gyor. ⁱ	Prædia, 1,059
Wieselburg.	Mosony.	Houses, 205,353
Schumeg.	Somogy.	Communes, &c.
Oedenburg.	Soprony.	Hungarians, 1,744
Szalad.	Szala.	Germans, 346
Tolna.	Tolna.	Croatians, 313
Veszprim.	Veszprem.	Slavonians, 62
		Servians, 26
		Vandals (Wends), 160

3. CIS-TIBISCAN CIRCLE.

G. of Abaujvar.	V. of Abauji.	Free and Royal towns, 6
Beregh.	Beregh.	Episcopal towns, 2
Borschod.	Borsod.	Burghs, 120
Gæmæ.	Gæmæ.	Villages and hamlets, 2,285
Hèvesch.	Hèves.	Prædia, 505
Scharosch.	Saros.	Houses, 181,745
Zips.	Scepes.	Communes, &c.
Torn.	Torna.	Slavonians, 1,106
Unghvar.	Unghvar.	Hungarians, 917
Zemplin.	Zemplén.	Rusniacs, 312
		Germans, 68
		Walachians, 9
		Poles, ^k 1

4. TRANS-TIBISCAN CIRCLE.

G. of Arad.	V. of Arad.	Free and Royal towns, 5
Bekesch.	Bekes.	Episcopal towns, 2
Bînar.	Bihar.	Burghs, 113
Tschanad.	Czanad.	Villages and hamlets, 1,782
Kraschow.	Krasso.	Prædia, 478
Marmarosch.	Marmaros.	Houses, 302,360
Saboltzsch.	Szabolcz.	Communes, &c.
Sathmar.	Szathmar.	Walachians, 1,061
Temesch.	Temes.	Hungarians, 564
Toronthal.	Torontal.	Rusniacs, 125
Ugotsch.	Ugocs.	Germans, 83
		Servians, 59
		Slavonians, 10

II. UNITED KINGDOMS.

Croatia; (Hung.) *Horrath Orszag.*Slavonia; (Hung.) *Toth Orszag.*

Dalmatia,

Galicia,

Lodomiria

} Claimed by the Hungarian diet.

^a *Orawska Stolica* (Slav.)^b *Tyekowska Stolica* (Slav.) *Tyekow* is the Slavonic name for the ancient royal town of *O-Bars* or Old Bars.^c *Ostrihomska Stolica* (Slav.)^d *Zsolenska Stolica* (Slav.)^e Free and royal cities, Episcopal cities, Towns.—P.^f By the laws of Hungary, the proprietors are obliged to let out to farm one half of their lands to their vassals; what they cultivate on their own account is called *Prædia*.—P.^g *Comitatus Albensis*, in Latin, from *Alba Regia*, the Latin name of the chief town.

COUNTIES OF CROATIA.

G. of Kreuz.	V. of Kæræs.	Free and Royal towns, 4
Warasdin.	Varasd.	Burghs, 8
Agram.	Zagrab.	Villages, 1,136
		Prædia, 7
		Houses, 33,486
		Communes, &c.
		Croatians, 1,148

COUNTIES OF SLAVONIA.

G. of Poschega.	V. of Poezega.	Royal towns, 2
Syrmie.	Szerem.	Burghs, 23
Verovitz.	Veracze.	Villages, 571
		Prædia, 28
		Houses, 35,189
		Communes, &c.
		Slavonians, 486
		Servians, 102
		Hungarians, 4
		Germans, 2
		Rusniacs, 1

III. PARTICULAR DISTRICTS.

A. Civil Districts.

Under the Palatine of the Kingdom.	} <i>Jazygie</i> (Ger.); <i>Jaszag</i> (Hung.); 3 burghs, 8 villages.	} <i>Great Cumania</i> .— <i>Nagy-Kunsag</i> (Hung.); 1 burgh, 5 villages.
Under the Royal Lieutenancy.	} Privileged villages of the <i>Haydukes</i> , 3 burghs. ¹	} <i>Trading coast</i> , ^m 2 burghs. ^o
Under the Archbishop of Gran.	} See (<i>Sedes</i>) of <i>Vaika</i> , } <i>Prædialists</i> , or noble vas-	} of <i>Verchel</i> . } sals of the Archbishop.

B. MILITARY LIMITS.

1. Under the military government of Croatia.

Captainry of Carlstadt.	} Regiment of Licania, 2 burghs, 105 villages.	} Ottohschatz, 1 town, 1 burgh, 79 vil-
Captainry of Varasdin.	} Ogulín, 1 burgh, 95 villages.	} Szluin, 2 burghs, 315 villages.

2. Under the ban of Croatia.

} Regiment 1st, 1 burgh, 140 villages
} Regiment 2d, 4 burghs, 138 villages.

3. Under the military government of Slavonia.

} Regiment of Gradisca, 1 town, 1 burgh, 131 vil-
} lages.
} Brod, 1 town, 1 burgh.
} Petervaradin, 1 town, 3 burghs, 69
} villages.
} District of the Tchaikistes, 13 villages.

4. Under the military government of the bannat.

} German Regiment, 1 burgh, 45 villages.
} Walacho-Ilyrian Regiment, 1 burgh, 111 villages.^h *Zelezna Stolica* (Slav.)ⁱ *Comitatus Jaurinensis*, from *Jaurinum*.^k In the small town of Pudlein.^l *Oppida Haydonicalia*.^m "*Littoral commercial*." In the civil department of Croatia, are comprehended the maritime districts, known under the name of *Littoral*, including the towns of Fiume, Zengg and Carlobago.—P.ⁿ We are not aware that the above division was restored in 1814.^o *Oppida Scepusiensia*.^p We do not know that the privileges of the district were restored in 1814.

IV. PRINCIPALITY OF TRANSYLVANIA. (*Erdely Orszag.*)

I. Hungarian Division. (*Magyarok-Resze.*)

COUNTIES.

<p><i>German Names.</i></p> <p>G. of Lower Weissenburg.</p> <p>Upper Weissenburg.</p> <p>Dobok.</p> <p>Hunyad.</p> <p>Klausenburg.</p> <p>Kraschna.</p> <p>Kokelburg.</p> <p>Szolnok, interior.</p> <p>central.</p> <p>Thorda.</p>	<p><i>Hungarian Names.</i></p> <p>V. of Als�-Feyer, (<i>Comitatus Al-</i> <i>bensis, Latin.</i>)^a</p> <p>Fels�-Feyer.</p> <p>Doboka.</p> <p>Hunyad.</p> <p>Kolos, (<i>Kluss in Walachian.</i>)</p> <p>Kraszna.</p> <p>Kukullo.</p> <p>Bels�-Szolnok.</p> <p>K�sep-Szolnok.</p> <p>Thorda.</p>
--	--

DISTRICTS, (*Videke.*)

<i>Fogarasch.</i>	<i>Fogaras.</i>
<i>K�var.</i>	<i>K�var.</i>

II. Country of the Szeklers. (*Szekelyek-Resze.*)^b

SEES OF SZEKE. (*Jurisdictions.*)

<i>Aranyosch.</i>	<i>Aranyos.</i>
<i>Tchik.</i>	<i>Czik.</i>
<i>Haromszek.</i>	<i>Haromszek (Sedes Trisedi-</i> <i>nensis.)</i> ^c
<i>Maros.</i>	<i>Maros.</i>
<i>Udvarhely.</i>	<i>Udvarhely.</i>

III. Country of the Saxons. (*Szaszok-Resze.*)

SEES OF SZEKE. (*Jurisdictions.*)

<i>Hermanstadt.</i>	<i>Seben (Comitatus Cibiniens-</i> <i>sis.)</i>
<i>Mediasch.</i>	<i>Medgyes.</i>
<i>Reismarkt.</i>	<i>Szerdahely (Sedes Mercurien-</i> <i>sis.)</i> ^d
<i>Reps.</i>	<i>K�-kalom (Sedes Rupensis.)</i>
<i>Muhlenbach.</i>	<i>Szasz-Sebes.</i>
<i>Schassburg.</i>	<i>Seges-Var.</i>
<i>Gross-Schenck.</i>	<i>Nagy-Sink.</i>
<i>Broos.</i>	<i>Szasz-Varos.</i>
<i>Leschkirch.</i>	<i>Ui-Egyhaz.</i>

DISTRICTS.

<i>Bistriz.</i>	<i>Bcsztercz or N�scn.</i>
<i>Kronstadt.</i>	<i>Brasso.</i>

ANOTHER DIVISION OF THE COUNTRY OF THE SAXONS.

<i>Alland, (the old country.)</i>	{ Hermanstadt. ^e Reps. Gross-Schenck. Leschkirch.
<i>Weinland, (the wine country.)</i>	{ Schessburg. Mediasch.
<i>Land vor dem Walde, (the land in front of the forests.)</i>	{ Muhlenbach. Reismarkt.
<i>Burzen Land, (the land of tempests.)</i>	{ Broos. Kronstadt.

IV. Military Limits.

1st Walachian regiment.	In the south of Hunyad and Hermanstadt.
2d Walachian regiment.	Around Kronstadt.
1st regiment of the Szeklers.	In the north of Czik.
2d regiment of the Szeklers.	In Haromszek.
Regiment of the Szekler hussars.	Scattered Villages.

^a We believe that the following are all the names by which the town of Weissenburg or Karlsburg has been distinguished. *Alba-Julia, Alba-Carolina, Carolopolis, Karoly-Feyer-Var, Weissenburg* (the low town), *Karlsburg* (the fortified town), *Belgrad.*

^b *Pars Siculorum* (official Latin.)

^c *Harom* means three, and the see or jurisdiction of Haromszek is formed by the junction of three others.

KINGDOM OF DALMATIA.

(*Claimed by the States General of Hungary.*)

DEPARTMENTS.^f

1. <i>Zara.</i>	{ Ancient county of Zara or Kotar. <i>Bucovitz.</i>
2. <i>Spalatro.</i>	{ Counties of <i>Sebenico, Knin, &c.</i>
The District of <i>Poglizza.</i>	{ <i>Zavoria.</i> <i>Petrovopogia.</i>
3. <i>Makarska.</i>	{ <i>Radobigna.</i> <i>Roskopogia.</i>
4. <i>Ragusa.</i>	Ragusan territory.
5. <i>Cattaro.</i>	<i>Bocche di Cattaro.</i>

Population.

I. POPULATION OF HUNGARY.

Census of 1820, according to Czaplowitz,	8,643,627
Increase in five years,	250,000
Amount in 1825,	8,893,627
Census, according to the <i>Vaterlandische Bl�tter</i> in 1816,	8,200,000

Different Classes of inhabitants, according to H�berlin, in 1802.	According to the <i>Vaterlandische Bl�tter</i> , in 1811.
Nobility, (males,)	162,495
Clergy,	13,728
Officers of government,	4,396
Manufacturers, artisans, &c.	8,356
Burgesses,	511,661(?)
Peasants,	584,326
Servants and workmen,	788,414
	12,066
	88,422
	613,215
	783,364

DIVISION ACCORDING TO THE ORIGIN OF THE INHABITANTS.

Magiars.	{ <i>Magiars</i> proper,	3,385,000
	{ <i>Kumans,</i>	73,000
	{ <i>Jazyges,</i>	42,000
	Sum,	3,500,000
Slavonians.	{ <i>Slovacks,</i>	2,903,957
	{ <i>Rusniacs,</i>	358,913
	{ <i>Szotaks,</i>	52,000
	{ <i>Poles,</i>	2,200
	{ <i>Vandals,</i>	40,730
	{ <i>Schokzes,</i> &	160,000
	{ <i>Croatians,</i>	328,000
	{ <i>Servians,</i>	165,000
	{ <i>Bulgarians,</i>	5,300
		4,016,100

<i>Germans,</i>	500,000
<i>Walachians,</i>	550,008
<i>Greeks,</i>	500
<i>Macedo-Walachians, or Zinzars.</i>	900
<i>Armenians.</i>	1,000
<i>Jews,</i>	550,000
<i>Zigeunes (Gypsies,)</i>	30,000
Different inhabitants,	500

(*Czaplowicz, Vaterland. Blatt. 1820, p. 409, &c.*)

DIVISION ACCORDING TO THE RELIGION OF THE INHABITANTS.

<i>Catholics,</i>	4,756,095
<i>United Greek Church,</i>	635,300
<i>Eastern Greek Church,</i>	1,097,800
<i>Armenians,</i>	1,000
<i>Reformed, or Calvinists</i>	1,285,816
<i>Lutherans,</i>	822,989
<i>Jews,</i>	150,000

(*Czaplowicz, Vaterland. Blatt. 1820, p. 27.*)

^d The town of Szerdahely is called *Mercurium* in some ancient documents, dated, it is said, about the year 1200.

^e The old country appears to have been the same as the *Fundus Regius Saxonius*, or the *Comitatus Cibiniensis** of the Royal Diplomas.

* "*Chibynicnsis.*"

^f "*Arrondissementens.*"

^g The Schokzes are a mixture of Walachians and Slavonians, in Slavonia.

2. POPULATION OF TRANSYLVANIA.

Census of 1811, according to M. Benigni,	1,501,406
Annual increase, 15,000,	210,000
Amount in 1825,	1,711,406

DIFFERENT NATIONS.

<i>Magiars and Szeklers,</i>	460,000
<i>Saxons,</i>	420,000
<i>Walachians,</i>	800,000
<i>Zigeunes, or Gypsies,</i>	70,000
<i>Slavonians,</i>	7,000
<i>Armenians,</i>	5,500
<i>Italians,</i>	1,800

DIVISION ACCORDING TO THE DIFFERENT RELIGIONS. (Hassel.)

<i>Catholics,</i>	120,000
<i>United Greek Church,</i>	160,000
<i>Eastern Greek Church,</i>	916,500
<i>Lutherans,</i>	168,000
<i>Reformed, or Calvinists,</i>	210,000
<i>Unitarians, (Socinians,)</i>	44,000

POPULATION OF THE MILITARY LIMITS.

<i>Census in 1815,</i>	940,598
<i>Annual Increase, 3,600</i>	36,000
<i>Population in 1825,</i>	976,598
<i>Men fit for the military service,</i>	135,824

DIFFERENT NATIONS IN 1815.

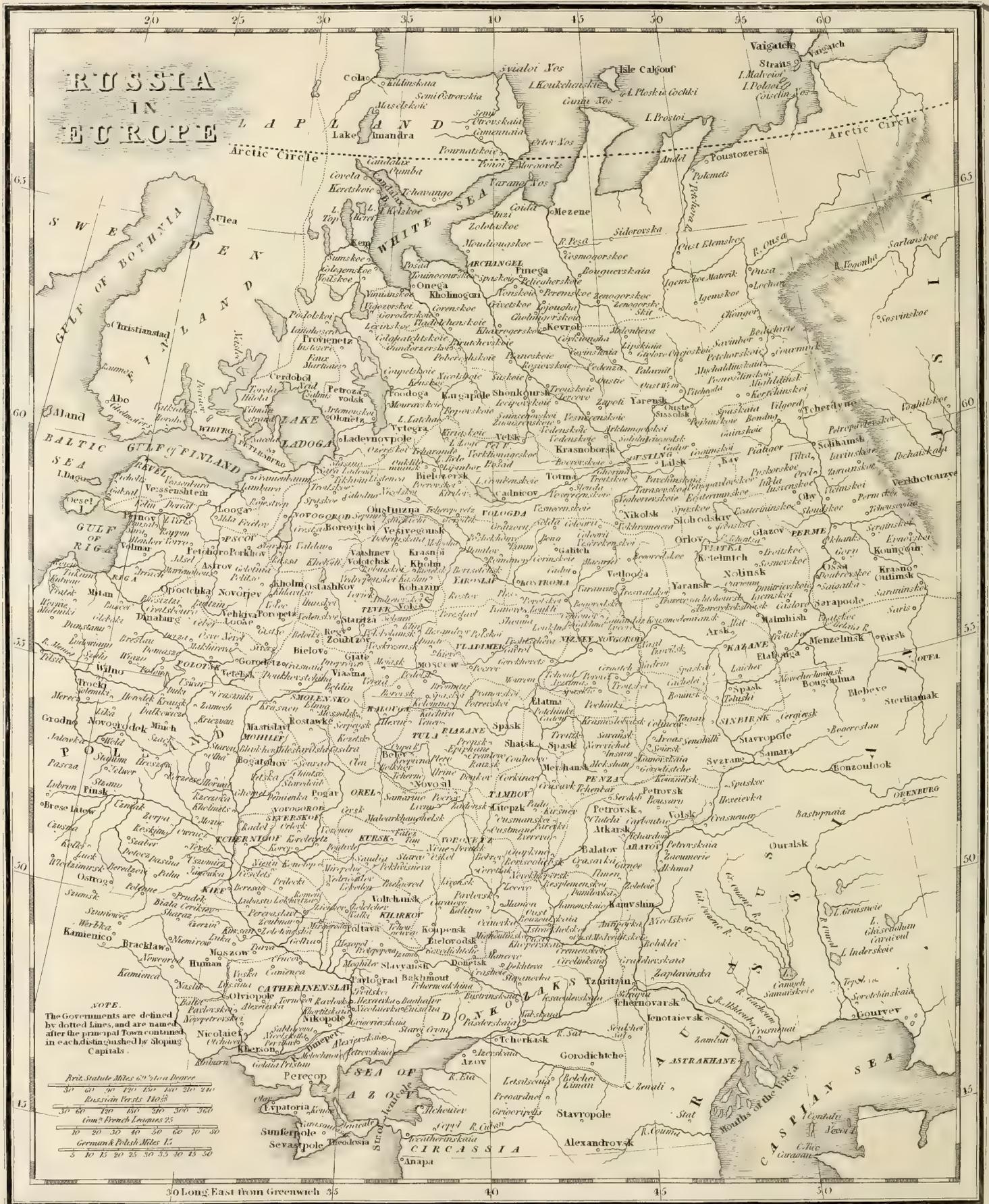
<i>Slavonians,</i>	728,173
<i>Walachians,</i>	121,062
<i>Magiars,</i>	79,363
<i>Germans,</i>	9,000

(Heitzinger's Statistics of the military limits, 1817.)

EXTENT.

	Hungarian Square Miles. a	POPULATION IN 1825. Supposed population.
<i>Hungary,</i>	4,169	9,000,000
<i>Transylvania,</i>	865	1,700,000
<i>Military limits,</i>	863	976,000
<i>Dalmatia,</i>	274	350,000
	6,171	12,026,000

a The Hungarian square mile is equal to sixteen English square miles.
[See note b, p. 459.]



BOOK CIV.

EUROPE.

European Russia. First Section. Southern Russia.

WE pass from the countries in the southeast of Europe, to the immense plains which extend from the Carpathian to the Ural range, a distance of 500 leagues, and throughout the whole of it, no mountain interrupts the unvaried horizon, or opposes a barrier to the winds. This half of Europe forms only the European part of the Russian empire. It might be necessary to repeat what has been already stated in the introduction to Europe, and in the comparative table of the seventeen physical regions, of which European Russia forms eight, were we to generalize the physical geography of so great an extent of country. The entire region of the *Scythian plains* is comprehended in what is generally termed southern Russia, but under that name is also included a narrow frontier, connected with the basin of the lower Danube.

The Dniester issues from a lake at the base of the Carpathians, waters Galicia or Austrian Poland, flows with impetuosity through beds of rocks, and forms a cataract near Iampol, so that boats cannot ascend it. But as the river descends, its course becomes less violent, and it terminates in a large *liman* or lake united to the sea, which is now called the lake of *Ovidovo* or the *ewes*. On that account^a the Russians imagine that the places rendered illustrious by the exile of Ovid, are situated in their empire. The modern Turla is built on the site of the ancient Tyras.^b The new Russian government of Bessarabia extends over the territory to the south of the Dniester, and comprehends the country of that name, together with that part of Moldavia on the east of the Pruth.

The numerous hills on the north of eastern Moldavia are overspread with oak, lime, and beech trees, and the fields are covered with maize, barley, millet, vineyards and orchards. But as we descend the two rivers, the hills become lower, wood is not so common, and the appearance of the country resembles that of Ottoman Moldavia. Almost all the inhabitants are *Moldovenys* or Moldavians; as they are now governed by a Christian prince, they are less barbarous than they once were, less slothful, and less addicted to drunkenness; they are now beginning to cultivate that fertile land, which under the double tyranny of the Hospodars and the Mussulmans was neglected, or used exclusively for the rearing of cattle. The peasants were obliged to serve their lords and masters without wages; the evil still exists, but not in so great a degree, gratuitous labour is now much reduced, and the profession of the same religion is a

bond of union between the Russians and Moldavians. The Walaehian or Daco-Roman dialect of the people is little different from the one spoken in Western Moldavia.^c

Khotim, or, according to the Polish orthography, *Choczim*,^d was formerly the most northern fortress in the Ottoman empire, of which it was considered a bulwark. The citadel was built according to the plan of French engineers, and the town was peopled at one time by 20,000 inhabitants; it does not contain at present a fourth part of that number. *Kischenau* is the residence of the ecclesiastical and civil authorities in the government of Bessarabia; among its edifices are a well-built synagogue, and three large marble fountains. *Orhey* is situated near a lake, in the middle of which is a thickly wooded island, and *Soroka* lies at no great distance from excavations abounding in nitre; both are ill peopled, the townsmen are indolent and poor. The inhabitants of the forest of *Kigiesch* on the ancient confines of Bessarabia and Moldavia, call themselves *Kodrenes*, and speak the Moldavian.

Bessarabia forms physically the lower part of Moldavia. No trees, a few shrubs only are observed near the rivers; the lakes or stagnant waters are covered with reeds, and in the plains between the marshes, the ox, the buffalo, and the *bison*^e wander among verdant pastures, where the herbage reaches to the height of their horns. In the cultivated land, millet yields an hundred-fold, and barley sixty. The finest peaches in Europe grow in the country round *Babahda*, and *Ismail* is noted for its apricots. Such is the heat or drought of summer, that all the streams between the two great rivers are dried up, and the inhabitants are then compelled to take their water from the fountains, which were dug by the Tartars, and guarded by the same people, with religious veneration. Continued rains set in during the autumn, and in that season, many rivers, marshes and ponds appear in different parts of the country. The horse and the sheep exist in a wild state; deer, chamois, hares and wolves abound in Bessarabia. The *Umans* or gulfs at the mouths of the rivers are stored with *sterlets*, *belugas*, large carps and various kinds of fish. Numerous flocks of cranes, storks, and different aquatic birds, haunt the rivers and the gulfs. The country, in other respects, resembles Moldavia.

Bender or *Tighin* (Moldavian) is an important fortress on the banks of the Dniester; it is peopled by 10,000 individuals, who, for the most part, are engaged in trade, and many of the lower orders are employed in tanning leather. *Kawschani* was once a commercial town of the Tartars, but

^a From the resemblance in the names. The town of *Ovidiopol* is also situated at the mouth of the Dniester.—P.

^b "The ancient name *Tyras* is retained in the Tartar and Moldavian name *Turla*." *Tyras* was the ancient name of the river, and *Turla* its modern name among the people in its vicinity.—P.

^c Observations sur la Moldavie Orientale, Ephém. Géogr. XXXIV. B. 133.

^d Pronounced *Khotsin*.

^e Busching, Erdbeschreibung, II. 795.

its 20,000 inhabitants have disappeared since the Russian conquest. Charles XII. and a few of his faithful soldiers defended themselves at *Warnitza* against a Turkish army. *Ak-Kierman*^a is ill fortified, its public buildings are large, and its fine harbour is formed by the liman of the Dniester; the population amounts to 10,000 or 15,000 inhabitants, who carry on a lucrative trade in salt.^b *Kilia*, a town of some consequence on the embouchure of the Danube, is likely from its position to be at some future period, very flourishing. *Ismail*, a fortified place, was peopled in 1789 by 30,000 individuals, but almost all of them were destroyed on the day that Suwarrow took the town by assault, and changed its mosques and bazar into a heap of ruins.^c

The Romans were not indifferent about the possession of these regions; they are said to have built an immense wall, the remains of which extend from *Kischenau* to *Taurida*, but the present inhabitants are of opinion that it was the work of the genii; it appears to have served as a protection to the maritime towns against the incursions of wandering and pastoral tribes.

Bessarabia was peopled in ancient times by the Scythians, Sarmatians, Getæ, and Bastarnians; and it became, after the death of Attila, a place of refuge for the dispersed Huns; but Hungarians and Bulgarians, who had served probably in the armies of Attila, entered the country so early as 469, and by them the Huns proper were driven beyond the Danube. It was in the year 635, that *Kuwrat*, a prince of the Hungarians and Bulgarians, freed his nation from the yoke of the Avars, and conquered several Slavonic tribes, that were settled between the Dniester and the Dnieper, among others the *Tiverzi* or *Twerzi*, and the *Lutitsches*. The Bulgarians retained their lands until the year 882, when the Magiars invaded their country, and founded an ephemeral empire. The conquerors were subdued in their turn by the Petchenegues and the Comans. The last people, though vanquished by the Mongols in 1241, retained their settlement in these regions under princes of their own race. They took from Bessarab, one of their rulers, the name of *Bessarabeni* or Bessarabians, and their new designation appeared for the first time in a passage relative to the year 1259, by the anonymous archdeacon of Gnesna, who wrote his chronicle in 1395.^d *Oldamur*, one of their kings, planned the invasion of Hungary in 1282; his subjects then inhabited Moldavia, and the Hungarian frontiers were exposed to their incursions. *Bali-Khan*, another prince who resided in *Karabuna*, sent an army in 1346, to the assistance of Anne of Savoy, a Byzantine empress, against John Cantacuzenus. Almost all the Bessarabeni had, at that period, embraced Christianity, and, although surrounded on all sides by Greek Christians, some Franciscan monks, whom the pope sent into the country, accomplished the end of their mission, and the nation remained faithful to the western church.^e Their adherence to that form of faith may have contributed to the decline of their power. It is certain that about the end of the fourteenth century, the Walachians and Moldavians possessed nearly the whole of Bessarabia. The same country was tributary to Hungary under queen *Hedwige*, and *Uladislaus* trans-

ferred it in 1393 to *Wlad*, a prince of Walachia. The fief passed to his son *Mirza*, but Alexander of Moldavia conquered it in 1412. The states of Alexander were divided by the Hungarians and the Poles, but his children retained Bessarabia. *Dracul*, a warlike prince of Walachia, ruled over the province from 1469 to 1474, and was then obliged to give it up to the victorious Mahomet the Second. The Moldavians took it under Stephen the Great in 1484, but two years afterwards the crescent was hoisted on the turrets of *Kilia* and *Akerman*. In 1560, a colony of 30,000 *Ngay-Tartar* families migrated from the banks of the *Volga* and the kingdom of *Astrakan* to Bessarabia, then depopulated by so many changes and destructive wars. These settlers were called *Budziaks*. Though accustomed to a pastoral life, many of them became husbandmen, and by the industry of its new inhabitants, the country continued to flourish until the Russians destroyed the feeble monarchy of the Khans of the Crimea. Some of the *Budziaks*, having put themselves under the protection of Russia, emigrated in 1770 to the banks of the *Kuban*; the rest fled to the south of the Danube in 1812, when Bessarabia was added, by the treaty of Bucharest, to the dominions of the Czar. The number of inhabitants in the province is at present reduced to 80,000. It is said that an Hungarian priest, who visited the country in 1706, had the satisfaction of finding many societies of Comans, who remained faithful to the Catholic church.^f The Polish and Wurtemberg colonists, who settled lately on the banks of the *Kogoulnik*, complain of the cold and severe winters.

Many treatises have been written^g on the origin and even on the name of the Bessarabians. It has been clearly proved that the ancient Bessi or Biessi, (a people whom we have included among the Proto-Slavonians,) inhabited the countries near the mouths of the Danube, from the first to the fourth century. An historian informs us, that in the year 376, the same people were the neighbours of the Antes or eastern Slavonians.^h It is not unlikely that they were the same as the Biessi, whom Ptolemy places in Sarmatia, and on the upper part of the Dnieper; perhaps their name was applied to two distinct people of Slavonic origin; at all events, we find the *Biessenens* and *Biessenia*, in the eighth century, near the mouths of the Danube. It has been supposed that these latter people were a branch of the *Patzinacitæ*, but it may be maintained with equal probability, that they were the descendants of the ancient Bessi. It is affirmed that *Muamed*, *khakan* of the Arabians, made an irruption into the Roman provinces, about the end of the seventh century, and that his Arabs mingled with the Bessi. The assertion requires to be confirmed by additional evidence; and the examination of the arguments relative to the continuance of the Bessi might lead us into an inquiry incompatible with the limits of this work.

The Dnieper or the Borysthenes waters three Russian governments, *Iekaterinoslav*, *Kherson* and *Taurida*, which formerly made up *Little Tartary*. The physical geographer observes only two regions in that country, the continental plain, and the peninsula of *Taurida* or the *Crimea*. The first is bounded on the north by the last hills in the central

^a Akerman.

^b The town is built on the site of the ancient *Tyras* of Ptolemy and *Amanianus Marcellinus*; it corresponds with the *Aspron* of Constantine Porphyrogenitus, (or the town built with white stones.) Its Slavonic name is *Bialogrod*; its Walachian and Moldavian, *Tchitate Alba*. We do not know on what authority it has been made a Roman colony, called *Alba-Julia*. The Turkish syllable *ak* means white.

^c About 20,000 of the Turks were killed, and 10,000 made prisoners.—P.

^d Sommersberg, *Scriptores rerum Silesiac.* I. 82, II. 73, 92.

^e Gebhardi, *Weltgeschichte*, XV. Part IV. p. 299, p. 512.

^f Busching, *Hist. Geog. Magazin*, III. p. 560. Sulzer, *Transalp. Dacien*, II. 83.

^g This is not asserted in the original.—P.

^h Jornandes, c. v. c. xlviii. Stritter, *Memoriae*, t. I. p. 161. Some of them at least, were baptized about the year 390.

plateau of Russia.^a The elevation of the slope that extends from the neighbourhood of Moscow, Kaluga and Tula towards the Black Sea, is about fifteen or sixteen hundred feet. The Dnieper winds through these heights amidst rocks of granite and primitive limestone, and forms many cataracts and whirlpools, but all of them disappear during the floods in the spring, and the inhabitants can then ascend the river in their boats. The same river rises from a marsh at the base of the table-land of Waldai, and receives from the right, the Beresina and the Pripetz, and from the left, the Sosna, the Desna, the Psiol, and many other streams. It waters a large and fertile country, and communicates by means of canals with the basins of the Duna and the Niemen. Its numerous falls, the shallowness of its feeders, the masses of ice with which it is covered above Kiew, from the first of November to the first of April, and below that town from the middle of December to the beginning of March, but above all, the want of intelligence and industry in the people, diminish its commercial importance. The water of the Dnieper, like that of its feeders, passes through beds of chalk, and marshes, and is not very fresh or limpid; still the sturgeon, the carp, the shad, the pike and a variety of other fish abound in its turbid streams. Serpents swarm in all the islands that are not inundated by the swelling of the river, but Kortitzkaia has been partly cultivated by the laborious efforts of a colony of Menonites. The Cossacki-sa-Parovi^b established their military settlements on the islands between the falls (*porogues*) and the confluence of the Bazoulouk; they fixed near the last place, their *setcha* or principal camp. The ancient names of the cataracts of the Dnieper are preserved in the writings of the Byzantines, and as they are of Gothic derivation, it is probable that the Ostrogoths, those warlike adventurers who issued from Scandinavia, conquered these countries in the course of their invasions.^c

The present towns on the river are *Iekaterinoslav* and *Kherson*; they are the capitals of two large governments, and the last contains a population of 10,000 souls. The greater part of the fleet on the Black Sea has been built in its dock yards, where seven ships of war may be constructed at one time. *Oczakof*^d or *Otchakof* was formerly an important Turkish fortress; it is now a station for merchant vessels,^e and the fortress of *Kimburn*, which is opposite to it, is a political point of view, equally insignificant. *Odessa* is the most flourishing town in that part of the Russian empire; its growing prosperity may be attributed to many fortunate but contingent events, and to the able protection of the Duke of Richelieu. It is at present peopled by more than 40,000 souls, and from it are exported all the corn, hides, wood

^a "It is bounded on the north by a circuit of granitic or argillaceous hills, overspread with blocks of granite, which seems to mark the last terrace in the central plateau of Russia."

^b "Cosaques-Zaporogues," Zaporog or Zaporovian Cossacks, (Russ. *Zaporog:tsi*, or beyond the cataracts.)

^c "established the seat of their military power in some of these islands."

^d Oczakov, Oczakow.

^e "The station for large vessels"—Oczakow is situated near the mouth of the Dnieper. Large vessels ascend farther with difficulty, on account of the numerous shoals in the river, which are continually shifting during the floods.—P.

^f Nouv. Ephém. Géogr. VI. 228.

^g The opening of the Bosphorus to the fleets of all nations, is the first and great object of the war now carried on by the Russians against the Turks. As long as the Porte exercises its present restrictive power, the Black Sea will be to the Russian navy but an inland lake, and the commercial, and of course agricultural prosperity of southern Russia, will be in a great measure at the mercy of Turkish caprice. That a nation so powerful as Russia, should any longer consent to be thus embargoed, and cut off from the use of a great natural outlet, can hardly be imagined. If she should fail in this attempt, it would be only to gather strength for a more desperate

and wax of the Ukraine, and all the merchandize that is borne down the Dniester and the Bog; its imports are the wines and fruits of the Mediterranean, the leather and silks of the Levant, and various other articles of foreign luxury. The value of its exports in 1816, amounted to 49,364,704 rubles, and that of the corn only was supposed to be worth 14 millions.^f It cannot, on the other hand, be denied that its trade must be uncertain, so long as the Ottoman power is established on the Bosphorus.^g

Elisawetgrad (*Elisabethgrad*), a town in the interior, is built in a fertile plain watered by the Ingul, and its population is not less than 12,000 individuals, many of whom are of Servian origin, and for the most part Raskolniks (*Roskolnikki*), or attached to the ancient rite of the Græco-Russian church.^h

The new city of *Nikolaief* is situated at the confluence of the Ingul and the Bog; it is the seat of an admiralty, it is peopled by 9000 inhabitants, and, although adorned with fine edifices, it is ill provided with wood and materials for building. The neighbourhood of *Ilinskaia* on the *liman* of the Bog, is covered with the ruins of *Olbia*, an ancient Milesian colony.

The country between the Dniester and the Dnieper may be divided into two distinct regions. The hills in the northern are partly covered with lofty forests of oaks, limes and poplars. The southern plains, though well adapted for corn, and not encumbered with trees, are almost wholly neglected; numerous flocks and herds feed on them, but the pastures are sometimes scorched by arid and burning winds. The soil, when it is first broken by the plough, appears to be impregnated with nitre, a substance deleterious to vegetation; yet as soon as it is removed or diminished, Albanian wheat, millet, and the arbute melon may be cultivated with great success. The farinaceous fruit of the *Cratægus aria* is made into bread, and used by the poor. The Greek poplar grows on the banks of the rivers, and the gardens in the neighbourhood of the towns yield almost every sort of fruit; thus there are several kinds of grapes, but the wine is weak and acid.

The animals indigenous to the country are the *myozus*,ⁱ the *suslik* or *mus citillus*, the *arctomys* or Russian marmot,^k the *mustela sarmatica*,^l and the *saiga*.^m The heaths and the brushwood of the steppes abound in partridges, quails, and woodcocks; and whenever the grasshoppers are not devoured by sea swallows, the whole or the greater part of the harvest is consumed by these destructive insects. The cold of winter is intense, and the streams are dried by the summer's heat.ⁿ

The above remarks are strictly applicable to the conflict. Nor can we see any very evil result to the other European powers from this free navigation of the Bosphorus. It would undoubtedly strengthen the naval power of Russia, but then it would, perhaps, more abundantly add to the resources of the other maritime powers, by the increased facilities of commerce; and if the Turkish government were animated by a spirit of peace and improvement, it would greatly increase the wealth and resources of its own capital.—P.

^h The national church in Russia gives the general name of Raskolniks, or Schismatics, to all the sects who have at different periods renounced her communion; but these separatists uniformly style themselves *Schismatics*, or *Believers of the old faith*.—R. Pinkerton.—P.

ⁱ Dormouse.

^k *Arctomys* is the generic name of the marmots. Perhaps the *hibernus* meant by the Russian marmot.—P.

^l The Sarmatian weasel—upper part of the body yellow and brown; hence the name in the original, "*marte tigre*."—P.

^m The Scythian antelope.

ⁿ Meyer, *Opisaniie Otebakowski Semlii*, 1791. Pæber's Account of *Iekaterinoslav*, in the *Memoirs of the Economical Society of St. Petersburg*, I. p. 196. Pallas's Travels.

try between the Dnieper and the sea of Azof. The well-wooded hills, however, form a narrower frontier, the steppes are more extensive, the soil is comparatively barren, and the husbandmen live at greater distances from one another. Brackish lakes and marshes, heaths and sandy downs, are thickly scattered through the plains.^a

All the towns, with the exception of *Bachmuth*, which is famous for its horses, are situated on the sea of Azof. *Tuganrok*, the most important of any, is built on a promontory; its harbour may contain from thirteen to fourteen hundred small vessels; the furs of eastern Russia are sent from it into different countries, and the other exports are the same as those of Odessa. Peter the Great wished to make it one of his capitals, and the place is memorable from the death of Alexander the First, who visited it in his journey through the provinces, and was there seized with the fever of the Crimea.

Nachitchevan, a town of 13,000 or 14,000 souls, is peopled by an Armenian colony. It is situated in a district attached to the government of Iekaterinoslav, and surrounded by the territory of the Cossacks. The trade consists chiefly in silk and cotton, the neighbouring country is thickly planted with mulberry trees, and the houses are built in the eastern style. *Azof* was once included among the cities of Asia; its fortifications have fallen into decay, but its gardens and fruit trees are now more numerous than ever.

All that extent of land together with Taurida, is sometimes called *New Russia*; it may be considered as an acquisition wrested by courage and industry from the Tartars and from nature. The greater part of the inhabitants are at present composed of Russian settlers; but the imperial government has invited colonists from every nation, and the population of Little Russia is nowhere more abundant than on the banks of the Dnieper. A mixture of Servians, Albanians, Walachians, and Moldavians, has inhabited, since 1754, the district between the Dnieper and the Ingul, which has been long known by the name of *New Servia*. These colonists are now confounded with the Russians. Some Poles sought refuge in the neighbourhood of Odessa, after the annihilation of their country, and the Greeks have increased on the banks of the Berda. Few settlers have migrated to the steppes of the Nogays. Ten villages to the southeast of these districts are peopled by the *Duchoborzes*^b or Russian quakers, and 30,000 Nogay-Tartars burnt their travelling wagons near these European settlements, and fixed their abode in seventy-three villages.^c

The colonists are in many places ill provided with timber for building; they live under the ground, and the hillocks, which are so common in the country, and which served in ancient times for graves or monuments of the dead, are now converted into houses; the vaults are changed into roofs, and beneath them are subterranean excavations. *Kurgan* is the Tartar name for these *tumuli*; they are scattered throughout New Russia, and were raised by different people who inhabited that region. The *kurgans* are not all of the same kind; some are not unlike

the rude works of the early Hungarians;^d others are formed of large and thin stones, like the Scandinavian tombs. It is to be regretted that the different articles contained in them have been only of late years examined with care. Many inscriptions, long concealed in ruins, prove the existence of Greek colonies from the banks of the Danube to the Borysthènes. Other and more frequent traces of the same people still remain on the coasts of Taurida.

A gulf of the Black Sea, and another of the Sea of Azof, are divided by a narrow isthmus, and limit on the north the peninsula of Taurida, or the Crimea. The eastern part is washed by the Sea of Azof, and separated from Asia by the strait of Yenikali, or the Cimmerician Bosphorus, and the southern and western coasts border on the Black Sea. The part to the north of the river Salghir is an immense plain, of which the western extremity is barren and covered with sand, and the northern or the country near the isthmus of Perecop abounds in salt and salt marshes, but the southern part is arable and fertile. When the wind is easterly, the eastern gulf, called the *Sivach* and the Putrid Sea or *Gniloi More*, receives by a narrow opening the waters of the Sea of Azof, but at other times the ooze, the filth and the mud that cover the bottom of that marsh may be seen to the distance of ten versts.^e The noxious exhalations that rise from it, render the country unhealthy beyond Perecop. Salt, sheep, and Albanian wheat, are the riches of the plains. But the air is mixed with unwholesome vapours, and the husbandmen that settle in the country, are subject on their arrival to dangerous diseases. The southern region is very different; a mountainous range of no great extent rises in front of the Black Sea. The maritime chain or highest part is formed by strata of calcareous rocks containing a few madreporas; the inland chain is also composed of limestone, mixed with shells, and its horizontal beds descend beneath the plains. The highest summit is situated in the neighbourhood of Sympheropol and Baktchisarai; it has been distinguished by the Russian name of *Tchetyr-Dag*,^f because its shape is not unlike a tent. The traveller takes three hours to ascend it, but he is rewarded for his toil by the view from the top; he can see the whole of that fine peninsula, which was at one time covered with flourishing cities under the dominion of the Tartars. Perecop is distinctly seen on the north, the Black Sea extends to the south and the west, and the distant prospect is bounded on the east by the Sea of Azof.^g The cavities in these rocks are filled with snow; from them the Salghir takes its rise, and a thousand rivulets wind in every direction. The streams form a great number of cascades before they reach the base of the mountain; the water is intensely cold, and so transparent that a small stone or a piece of silver may be easily observed at the depth of seventy fathoms. Caverns are situated in many parts of these calcareous mountains; those of *Bobatag* served as an asylum for the ancient inhabitants.^h The mildest and most fruitful region in all the Russian empire is that continuation of vallies arranged in natural amphitheatres at the southern base of Taurida, along the coasts

^a Junker's Account of the Country between the Dnieper and the Don, in Muller's Historical Memoirs of the Russian empire, volume IX.

^b *Duchobortsii*.—R. Pinkerton.

^c *Nouvelles Annales des Voyages*, t. I. p. 249.

^d "Utensils have been found in them, similar to those of the Hungarians."

^e The verst, a Russian measure of length, is equal to 3520 English feet,* consequently three versts are equal to two English miles.

* 1167 English yards or 3500 English feet nearly.—*Ed. Encyc.*

^f This is the Tartar name of the mountain, the *Trapezus* of Strabo. *Dag* or *Tag* is the Tartar for mountain, as in Belur Tag, Mus Tag, &c. in central Asia.—P.

^g The height of the summit is 1200 feet according to Pallas, and 6600 according to Sumarakof. [Its perpendicular height does not exceed 1300 feet.—*Clarke*.]

^h Pallas, *Tableau Physique de la Tauride*.

of the Black Sea. "The climate is little different from that of Anatolia and Asia Minor; winter is hardly felt, the primrose and the crocus appear above the ground in the month of January, and the oak retains its green foliage throughout the year. No part of Taurida, perhaps of the whole empire, affords the botanist a greater variety of plants, or the husbandmen richer harvests. The ever-verdant laurel grows beside the olive, the pomegranate, the fig and the nettle tree,^a which might have been brought to the country in ancient times by Greek colonists. The manniferous ash, the mastich,^b the sumach, the bladder-nut, the sage-leaved cistus, the emerus^c and the arbuté of Asia Minor, flourish in the open air. The walnut, and almost every kind of fruit tree thrive in the woods or rather the natural gardens in the vallies. The caper bush is scattered along the coast; the wild vine reaches to the tops of the highest trees, descends again to the ground, and forms with the viburnum festoons and garlands. High hills, masses of rocks, streams and cataracts, verdant fields and woods, and the sea that bounds the horizon, render the landscape equal to any imagined or described by poets. The simple life of the good Tartars, their cottages cut in the solid rock, and concealed by the thick foliage of surrounding gardens, the flute of the shepherd, and his flocks scattered on the solitary hills, remind the stranger of the golden age. The traveller leaves the people with regret, and envies the destiny of mortals ignorant of war, the frauds of trade, and luxury accompanied with all its vices."

These are the words of the learned Pallas, who left the court of Petersburg to spend the remainder of his days in the Crimea.

The valuable plants of southern Europe and Asia Minor, might be cultivated in Taurida, and thus contribute to the wealth of Russia. "The most delicate fruits," continues M. Pallas, "arrive at maturity, many exist already in the province, olives and fig trees need not be exported from other regions, there is no scarcity of sesamum, a plant rich in oil, and the orange, the lemon and the citron, if a little care be bestowed on them, resist the cold of winter. The grape might be much improved, if a judicious selection of the best vines were made in other countries, and if they were cultivated on different soils, the effect of which on the quality of the fruit had been previously ascertained. It might be necessary too to pay greater attention to the vintage, to the making of the new wine, and the preserving of the old. Druggists might obtain from the same country, many valuable simples and plants useful in dying, such as those generally exported from the islands in the Archipelago, from Greece, Asia Minor and Persia. Some of these plants are already found in a wild state, as the manniferous ash and the turnsole, that yields a rich blue dye. The same country is well adapted for the growth of different kinds of coloured and hard timber, or for the wood employed in cabinet work, for the cypress, the cork-tree, and the oaks from which gall-nuts and kermes are obtained, and the acorns used in dressing morocco leather."

The advantages which Pallas enumerated to his sovereign, are not likely to be soon realized. It is not denied

^a "Micocoulier," *Celtis*, L. Lote or nettle tree.

^b "Terebenthinier," *Pistacia Terebinthus*, Chio Turpentine tree.—P.

^c *Coronilla Emerus*, L. Scorpion senna.

^d It is not stated in the original that they are consumed on the tables of the rich, but that they are employed as a dessert. It is well known that in vine countries, grapes form an article of food for all classes of inhabitants.—P.

^e In Tartar, *Or-Capi*.

^f This is not the meaning conveyed by the original, but rather that we do

that the germs of a new vegetation exist in the royal gardens at Nikita and other places, but the judicious labours of M. Steven are feebly seconded by the industry of the inhabitants. The Tartar gardeners confine themselves to the cultivation of melons, arbutes, and the ordinary vegetables. Apple, pear and cherry trees grow on the mountains; the peach, the fig, and the pomegranate thrive on the southern coast, but the olive is neglected, and the plantation of mulberry trees in the neighbourhood of Staro-Krim is the only one in the country. The fourtern different kinds of grapes in Taurida are mostly consumed on the tables of the rich,^d and the quantity of wine produced is comparatively insignificant. The vineyards of Sudak form an exception; more than 30,000 eimers of wine are every year obtained from them. The Russian nobles for some time past have purchased land on that coast; its cultivation is thus improved, and the new proprietors expect ere long to raise *Burgundy* and *Champagne* on their own estates, and to eat oranges from their own groves. But the nature of the climate, the vernal frosts, and the excessive heat of summer, if not insuperable obstacles, can only be surmounted by a civilized and industrious population.

Perecop,^e a fortified place, consisting only of three houses, is not calculated to give the stranger a favourable opinion of the Crimean towns. The suburb is three versts or about two English miles distant; although peopled by a thousand individuals, who carry on a trade in salt, it is very ill built. The places to which the name of towns is least inapplicable, are situated in the district watered by the Salghir.^f That part of the country on which *Akmetchet*, the present capital, stands, is not fruitful; it is ill provided with water, and the inhabitants are exposed to endemical fevers. The town has been called *Sympheropcl* by the Russians, since they became masters of the peninsula, but it is only known in the country by the name which it received from the Tartars. The population is not less than 20,000 souls; the inhabitants are indolent, and the place is without commerce.^g The distance from Akmetchet to *Baktchi-Sarai*, is not more than 30 versts, or twenty English miles. It was once the residence of the Khan, and the Tartar capital of the Crimea. It is built on the craggy sides of a large natural fosse, between two mountains, and surrounded with fountains, streams, gardens, terraces, hanging vineyards and groves of black poplars, near rocks and precipices. The vast palace of the Khans still remains, but many other edifices have been destroyed by the victorious Russians.^h The number of inhabitants is now reduced to seven or eight thousand; their principal trade consists in cutlery and morocco leather. *Tchufut-Kali*,ⁱ an ancient fortress erected by the Genoese on a lofty precipice, is not more than five versts from the last town. It is now a place of refuge for 1200 Jews, of the sect called *Karaï*. The character of the Karaïtes is very different from that of their brethren in other countries; they live without reproach, their honesty is proverbial in the Crimea, and the word of a Karaïte is said to be as good as another man's bond. They still adhere to the law of Moses; they have rejected the Talmud, every Rabbinical doctrine, and all interpolations of scriptu-

not find any towns till we reach the district watered by the Salghir. The other could not be true since there are important towns on the southern and western coasts, but none on the plains north of the Salghir.—P.

^g Wsevolovski's Dictionary, article *Sympheropcl*.

^h Clarke's Travels, vol. I. p. 464.

ⁱ *Tchufut* was originally a name of reproach bestowed on the Jews; *Kalé* signifies a fort.

ral texts.^a *Koslow*, which was for a short time distinguished by the name of *Eupatoria*, is situated on the western coast; its port is the most commercial of any in the peninsula, its population amounts to 12,000 inhabitants, many of whom are brewers of *bouza*, the Mussulman beer, which is known by the same name, even in Sennaar. *Akhtiar* or *Sevastopol*, a large naval arsenal, and a temporary station of the Russian fleet, from which it can sail in twenty-four hours to the Bosphorus, is built on the southern extremity of the same coast. We observe after having doubled the capes of Chersonesus and St. George, the narrow entrance of the port of *Balacava*, where two thousand Greeks gain a subsistence by trade and the produce of their mackerel fisheries. All the rocky and steep coast from Cape *Aia* to Cape *Aitodoro*, is, in our opinion, the *forehead of the ram*, or the *Kriou-Metopon* of the ancients. Travellers remark at the base of the mountains, called by the Byzantines the *Klimata* or steps, the romantic towns of *Nikita*, *Aloutchi*, *Sudak* and its small harbour, and *Ioursouf* with a castle belonging to the governors of Taurida. *Caffa* or the ancient *Theodosia* is situated at the extremity of the mountains on the bay of Caffa. It covers the southern side of the gulf, and rises like a vast theatre, with its numerous mosques and minarets, over all the hills which enclose that part of the bay. It merited and obtained in past times the appellation of the Lesser Constantinople; it contained 36,000 houses within its walls, and not fewer than 8000 in the suburbs. It must be confessed, however, that the ruins do not indicate a space proportionate to so great a number. Mahomet II. having made himself master of the Bosphorus, took the town in 1475. It continued to flourish under the Tartars, but its inhabitants, like those throughout the Crimea, abandoned their possessions at the approach of the Russians, and the Genoese and Tartar monuments were destroyed by the barbarous troops of the czar.^b The present population is less than 4000.^c *Kertch*, once the residence of Mithridates, and the capital of the Bosphorian kings, and *Yenicale*, a small fortress that commands the strait, are situated in the eastern peninsula; near the former is the tomb of Mithridates, and a magnificent sarcophagus at Yenicale is now changed into a reservoir. The *Altyn Obo*, a tumulus on the most elevated spot in that part of the Crimea, is about four versts distance from Kertch; it contains, according to tradition, a treasure guarded by a virgin, who spends her nights in lamentations. It was from the ancient citadel of the Bosphorians on a precipice above the sea, that Mithridates threw his son Xiphanes into the waves; at least there is no other spot connected with the site of Panticapæum,^d which from its eminence corresponds with the text of Appian, who says that the mother stood on the other side of the strait, and witnessed the murder of her son.^e

We shall not enter into any inquiry concerning the Scythians, Tauro-Scythians, Cimmerians, or the other ancient inhabitants of the Crimea. The Tartars (many of whom have now left their country) are sprung from the Turks, the Græco-Scythians, and the Nogays of the great horde, the founders of the khanat of Kaptshak. They are divided into many distinct classes, but there are no slaves or servile tribes amongst them. The estates of the lords are cultivated by farmers or hired labourers, whose condition is by no means wretched, and the nobles are the only individuals in

the community that can possess land. Each village is still governed by its *Mursa* or elective chief, who enforces the laws, and is at the head of the rural authorities. The dwellings of the Tartars exhibit the rudeness and simplicity of early ages. Stakes or branches of trees are placed without regularity above one another, the chinks or interstices are filled with moss, and the spaces thus enclosed form the habitations of the peasants. The houses of the nobles are equally superficial, and consist only of a single story. The outer ornaments are light wooden pillars, painted in green, red or yellow; the rooms are not provided with chairs or tables, but a number of large cushions, placed round each apartment, serve the double purpose of seats and beds. A large space is left behind the wainscot, and all the necessary articles of household furniture are kept in it.

The Tartars, like all the neighbouring subjects of the empire, hate their masters, their customs and institutions. The Russians have done little to allay such prejudices; on the contrary, they have done much to increase them. If aversion to despotic rulers be considered a heinous offence in the conquered, it must be admitted that they have many redeeming virtues; for every traveller that has visited the Crimea, speaks in high terms of their strict honesty and integrity. The same people are generous and hospitable, a patriarchal simplicity prevails among them, and houses set apart for the reception of strangers are attached to the dwellings of the wealthy. Travellers make mention of a convent of Tartar nuns at Baktchisarai; their dress too is said not to be very different from that worn by the white penitents during their religious processions.

The improvement in the cultivation of the vine and the breeding of silk-worms has not been greatly advanced by the Greek or German colonists, and their assistance has not been of much value in the different manufactures. The Slavonic settlers are a thriving colony; they are now accustomed to the climate, their number is rapidly increasing, but they are ignorant and ill educated.

It may be as well to take a short survey of the history of the Cossacks of the Don and the Black Sea, before we attempt to describe their country.^f Although the territory belonging exclusively to that people is equal in extent to 4600 geographical square miles,^g or about 12,800 square leagues, it contains few towns, and is ill calculated to excite the attention of the geographer. Little Russia is the native country of the Cossacks. The Slavonians of Kiow formed originally a distinct colony from those of Novgorod; the nature of their government was not the same, their destiny has been widely different. Separated from each other for more than three centuries, they have been at last united; but their language, manners and even physical constitution are so many marks of a distinct people. The Malo-Russians or inhabitants of Little Russia are at present settled in the Ukraine or in the governments of Kiow, Tchernigow, Novgorod-Severski, Kursk, Orel and Tambof. All the military peasants in these provinces are denominated Cossacks, but formerly the same name was specially applied to a number of warlike freebooters, who lived under a separate government. The word is of Tartar origin, and signifies an armed man; it was adopted by the Russians at the time when they began to reside in the places which the Tartars inhabited, or when the conquerors mixed with the few of

^a Clarke, vol. I. p. 482.

^b Clarke's Travels, chapters 18 and 19.

^c "Fifty families are at present the whole population of Caffa."—Clarke, chap. 19.

^d The Modern Kertchy.

^e Clarke, chapter 18.

^f Muller, *Memoire historique sur les Kosaks*. Lesur, *Histoire des Cosaques*.

^g Fifteen of these miles are equal to a degree.—Tr.

the vanquished that remained, and became habituated to the same sort of life. Constantine Porphyrogenitus mentions *Kasachia*, a country at the base of Mount Caucasus, between the Black and the Caspian sea. According to the Russian annals, Mistislaf, prince of *Tmoutarakan*, and son of the great Vladimir, gained a signal victory in 1021 over the *Kosaki*, a people that appear to be the same as the one mentioned by the Greek emperor. They were probably of Tartar origin, and their name was perhaps derived from their mode of fighting, in the same manner as the *Kirguis-Kaisaks* have been so called from their light armour. Frequent mention is made of the Cossack Tartars in Russian history, particularly during the reign of Ivan the First. The *Ordinski Cossacks* were distinguished much about the same time from the *Cossacks of Azof*; the former belonged to the great *Orda* or horde, the principal settlement of the Tartars on the *Volga*. These two branches are the last remains of the Tartar empire in Russia. The people were partly destroyed by the conquerors; many of them fled on their arrival, and joined other Tartar tribes.

The Cossacks of Little Russia are not mentioned before the year 1320, when Gedemin, grand duke of Lithuania, conquered Kiow. The origin of their military republic has been ascribed to the terror excited by the victories of that prince. Swarms of fugitives left their country, assembled at the mouth of the Dnieper, and formed a petty state. They were compelled, in order to resist the aggressions of their neighbours, to live under a military government, and to submit to military laws. Their number was considerably augmented after Kiow was a second time laid waste by the Tartars in 1415, and they increased still more rapidly when that large principality was united to Lithuania and Poland. The new colony was called Little Russia, and thus distinguished from the great empire. The inhabitants extended gradually to the banks of the *Bog* and the *Dniester*, and occupied all the country between these rivers and the *Dnieper*. The Cossacks built towns and villages in which they resided with their families during winter, but in summer as many as were able to bear arms wandered in the steppes, where, like the knights of St. John of Jerusalem, they waged continual war against the Turks and Tartars. Poland was thus protected against its most formidable enemies, and the Poles, far from checking the power of the rising republic, did all they could to promote it. King Sigismund ceded for ever to the Cossacks in 1540, the countries beyond the cataracts of *Dnieper*. Stephen Bathory improved their military government, appointed their hetman or chief, and granted them an extensive territory, but his successors did not act with the same policy. The Cossacks were prohibited from continuing their incursions against the Turks, and it was not imagined that their warlike institutions were thus essentially impaired. Poles settled in their country, and to them the highest offices in the state were committed. Their clergy too were compelled to renounce the spiritual authority of the Greek patriarch, and to acknowledge the supremacy of the pope. The Cossacks, after an obstinate war, shook off the yoke, and submitted to the czars. That event happened in 1654, about three centuries and a half after the first separation of the Cossacks of the great body from the Russian nation.

Many of the Cossacks left the eastern banks of the *Dnieper*, and migrated to the southern provinces of Russia during their wars with the Poles. They settled in a fertile region, and retained a stratocracy in their new posses-

sions. Such is the origin of the Cossacks of the *Slobodes*, or of the Russian Ukraine. Their country had been formerly attached to the great duchy of Kiow, but it had remained uncultivated and desert since the first invasion of the Tartars.

The branch of the *Zaporogues*, which is much more ancient than that of the *Slobodes*, is perhaps the most remarkable of any. It was determined in order to defend the Cossacks of the Ukraine from the invasions of the Tartars, that a number of young unmarried men should occupy the southern frontiers where the *Dnieper* discharges itself into the Black Sea. Warlike youths flocked from every direction to that station, which soon became a military school, and so great was the attachment of these Cossacks to their new country that they refused to leave it, although exposed on every side to hostile incursions. The number of the colonists was from time to time increased by the arrival of their countrymen who fled from the oppression of the Poles.

It was about the commencement of the seventeenth century that they separated wholly from the Cossacks of Little Russia, whose hetman they had until that time obeyed. They then formed a distinct military state, and elected a chief, called the *kochevoi-ataman* or commander of the camp. Their *setcha* or principal station was a fortified camp, and although its position was often changed, it remained always near the cataracts of the *Dnieper*, from which they derived their name.^a

The nature of their military government is not unworthy of notice. War was the sole object of their union; they neglected agriculture and the rearing of cattle; fishing and the chase were their amusements, not sources of emolument, or the means of gaining a subsistence. All the members of the society were obliged to remain in a state of celibacy, and although they generally carried off the wives of their neighbours, it was unlawful to bring a woman within the limits of the *setcha*. To prevent their population from being impaired, they captured and took away many boys in the course of their expeditions, and their numbers were increased by the accession of criminals or outlaws from every kingdom, and almost all the European languages were spoken in their tents.

The ataman was chosen every year, and no dignity or mark of distinction was conferred on him after the expiration of his office. Every member in the community was eligible to the highest place in the republic. They had no written laws; custom superseded their necessity, and little inconvenience arose from the want of them in the administration of justice. Criminals were judged with impartiality, and punished with extraordinary severity. The murderer was buried alive in the same grave with him whom he had destroyed. Robbers were confined three days in the stocks, and afterwards condemned to suffer so many stripes that most of them perished under the lash. These Cossacks had all the virtues and vices of freebooters. They were brave and barbarous, hospitable and covetous, sober and active in their military expeditions, indolent and drunken in their houses or tents. The number of those fit to bear arms amounted sometimes to forty thousand.

Their state, though not subdued, recognised at different times the authority of the Poles, the Tartars, the Porte and

^a Their name signifies *beyond the cataracts*. Russ. *porog*, a cataract.—P.

RUSSES. Peter the Great destroyed their *setcha* when they joined the revolt of Mazepa, the hetman of the Cossacks of the Ukraine. They lived afterwards under the protection of the Crimean khans, and were admitted in 1737 among the number of the Russian vassals. All the service they had to perform to the Czar was to take the field when they were required, and on these occasions they were treated and paid like the other Cossacks. They were guilty of rebellion in the war against the Turks, which terminated in 1774; it was then they declared themselves independent, and when colonies were established in the conquered countries on the banks of the Dnieper,^a the Cossacks maintained that the territory was their own, harassed the settlers, and by force or stratagem took fifty thousand captives. The empress resolved to punish the rebels, and to annihilate a state which, under more favourable auspices, might have become a second Lacedæmon. A Russian army surrounded their camp and disarmed them in 1775. A manifesto was published, and they were permitted to leave the empire, or abandon their military institutions. A few betook themselves to agriculture; the rest repaired in crowds to the Turks and Tartars.

The descendants of these Cossacks still exist under a different name and in a different country. Catherine II, by an ukase of the 30th of June, 1792, ceded to the Zaporogues, who had distinguished themselves in the last war against the Turks, the peninsula of Taman and all the territory bounded by the Feia and the Laba, between the Kuban and the sea of Azof. The extent of that territory is not less than 16,272 square miles.^b The people were from that time called the *Tchernomorski*, or the Cossacks of the Black Sea; they had the privilege of choosing their ataman, and fifteen thousand inhabitants of Little Russia were allowed to migrate with them to the new settlement. But they have voluntarily renounced their ancient customs, marriage is no longer unlawful, and the predatory warriors are now husbandmen and shepherds. Three thousand, who have enlisted in the service of Russia, make up at present six regiments.^c Their country, according to the limits to which we adhere, forms a part of Asia; it is contiguous to Circassia on the south, and the steppes of Astrakan on the east. The soil is fruitful and well watered, and if the banks of the Kuban be excepted, the climate is not unhealthy. But it is on these banks that the Tchernomorsk settled and founded *Iekaterinodar*, their capital, near rich pastures covered with unwholesome fogs. The peninsula of Taman is sometimes changed into an island by the inundations of the Kuban, and is almost always exposed to pestilential vapours. In some parts of the same region, showers of viscous mud rise occasionally from the ground; they are improperly denominated *mud volcanoes*. The town of Taman is built on the site of the ancient *Phanagoria*; it is officially called *Tmoutaracan*, the name which it bore in the middle ages, when the capital of a small kingdom.

The Cossacks of the Don form another great branch of the same people. They are not, as M. Muller supposes, descended from the Russians of Novgorod and Moscow; their language is not different from that of the Little Russians. It is likely that they settled gradually in the countries from which the Tartars were expelled. It may be inferred too that the new colonists obtained the Tartar name

of Cossacks from their mode of life and their connexions with the former inhabitants, while those of Little Russia were so denominated, because they adopted the same military institutions. It is not improbable that some Tartars remained in these countries, who mingled with the Russians, spoke in time their language, and became converts to the Greek church. The rapid increase in the population of the republic, the Tartar words still retained by the Cossacks of the Don, and the difference in their physiognomy, tend to corroborate our opinion. The colonists formed a considerable state a short time after their migration. Many young men fled from the slavery which was then introduced in Russia, and added to their numbers. All were admitted to the rights of citizens; even the prisoners of war might share the same privileges. It was in the year 1570, after the campaign of the Turks against Astrakan, that the colonists fixed their capital at *Tcherkask*, which is 60 versts distant from the fortress of Azof. They took from their new residence the name of *Tcherkaski*.

Their nation was then one of the bulwarks of the empire, and they were protected by the czars, in the same way as the Cossacks of Little Russia had been protected by the kings of Poland. Privileges were conferred on them, and exempt from every impost was assigned to them on the frontier, but the emperors wished to subject them to a sort of military vassalage. The Cossacks of the Don were seen for the first time in the Russian armies in the year 1579; since that period, many battles have been decided by their courage; still their love of independence, and their avidity of plunder, have on some occasions excited them to revolt.

The Cossacks of the Don inhabit at present the plains watered by that river, and their country extends between the governments of Saratof, Astrakan, Woronesch or Voronez and Iekaterinoslav to the sea of Azof. Their territory is about 57,600 geographical square miles in extent;^d it was formerly larger, but, after an insurrection in 1708, a part was added to the neighbouring provinces. They have retained their peculiar organization, and their military constitution is different from that of the other Russian governments. The territory of the Don Cossacks is an immense plain, wholly destitute of hills. Some parts of it are as fruitful as the Ukraine, but the soil in general is barren, the inhabitants have made little progress in the useful arts, and agriculture is neglected. The wealth of the fierce and indolent Cossack consists in cattle, and some subsist by their fisheries. The fish and caviar exported annually from the country amount in value to 500,000 roubles.^e The culture of the ground, and rural labour are committed to Russian peasants, whom the Cossack hires for very moderate wages. The greater part of his time is spent in taking care of his horse, and the *tabounes* or herds of the rich are made up of five hundred or a thousand head, but the saddle horses only are sheltered in winter from the inclemency of the season. The Cossack horse, though small and lean, is swift and almost indefatigable. Whenever many of the Cossacks are gathered together, horse racing is almost their sole amusement.

The women weave linen and woolen cloth, they make pelisses, mantles and stockings, and they take care of the gardens, the orchards and even the vineyards, which are

^a These countries were at that time called New Servia.

^b Geographical miles, sixty of which are equal to a degree. ["1017 geographical square miles, or 2825 square leagues."]

^c "They furnish the crown six disciplined regiments, which amount to about 3000 men."

^d "3600 geographical square miles [15 to a degree,] or 10,000 square leagues."

^e A rouble is equal to four shillings and two pence.

more numerous in their country than in any other Russian province. The dwellings of the Cossacks are clean, and evince a degree of refinement which we look for in vain in the greater part of Russia. The houses are white, and provided with chimneys and windows; the inmates never shut their doors against the stranger, all of them practise the virtue of hospitality. Costly articles of furniture are seen in the houses of the wealthy, who are now desirous of acquiring knowledge, and many of them send their children to study at Petersburg. A seminary, which is much frequented, has been established at Tcherkask, the chief town in the country. The principal church is adorned with many standards and other trophies collected in most parts of Europe. The inhabitants enjoy a great degree of civil and political liberty, the monopolies of the crown are not felt, the people may make and sell as much brandy as they please, they pay nothing to the excise,^a they are exempt from the poll tax, and the militia or conscription.^b If their presence is requisite on any extraordinary emergence, they must rise in mass, but the Cossacks are never unwilling to join the Russian armies; war is an amusement, not a hardship. The Cossack is never happier than on horseback; he is valiant in battle, he delights in plunder. The Russian secretary of war signifies his instructions to the *ataman* or *hetman*, the chief or general of this military nation. The propositions of government are made known to the people, who decide by a majority of votes, whether or not the requisition ought to be obeyed, and in what manner it should be put in execution. Examples are on record, in which the majority have opposed the views of government. The czars have sometimes yielded to their wishes; in other instances the slightest opposition has been construed into a revolt. To form an aristocracy, or to attach the wealthiest families by honourable and hereditary distinctions, is the great object of the Russian cabinet; in this way, it is thought, the democracy may be undermined, or placed on a level with the other Russian governments.

The villages of the Cossacks are called *stanitzas*; they contain from 150 to 400 houses; each *stanitza* has its elective magistrate, and forms a military company. There are few places in the country that merit the name of towns, and the few that do so, resemble large villages. Tcherkask^c or the capital which we have already mentioned, is built in a marsh, and supported on piles. The inhabitants sail in spring from house to house. The city is divided into eleven *stanitzas*, and contains fifteen thousand individuals. The number of habitations may amount to three thousand, and five persons may be allowed on an average for each house. The great quantity of timber used in the town for bridges, houses and streets, is brought by the Wolga; a sufficient supply could not be obtained by the Don. Some of the inhabitants are anxious to remove to *Novoi-Tcherkask*, which is officially designated as the capital, but the greater number are loth to quit their present residence, although it is admitted to be unhealthy.^d *Tziemlianskaia* is noted for its vineyards, and their produce is compared to Burgundy. The other Cossack grapes are mostly white; the wines from many of them are sparkling, and although few are of a good quality, the people are not indifferent

about drinking them. Two great fairs are held at *Urupinskaja* and *Luganskaia*.

The country of the Don Cossacks is watered by the Don and its feeders, of which the *Donetz* or *Danaetz* is the most considerable. Some writers suppose the last river the same as the *Tanais* of the ancients, but it is more likely that the incorrect notions which the ancients had of the *Wolga*, led them to confound it with the *Tanais*. The Don issues from the lake *Iwanow*, and waters a hilly and fruitful country until it reaches *Woronesch*.^e It is bounded on the left, from that town to the confluence of the *Donetz*, by steep banks of chalk, but as it proceeds in its course, it enters an immense and unvaried plain; its streams are neither confined by rocks, nor broken by cataracts. Its depth in these plains is not less in winter than six or seven feet, but the water does not rise in summer to the height of two feet above its sandy bed. Navigation is thus prevented, and the water of the Don, like that of its feeders, is so bad that the inhabitants themselves can hardly drink it. Much advantage, it is thought, might result if the river were united to the *Wolga* by means of the *Medwoeditza* or rather the *Ilawla*, but few boats could sail by such a passage from the want of water in the Don, and from the difference in the level, which is fifty feet higher on the side of the same river than on that of the *Wolga*.^f The Don receives from the Caspian steppes the *Manytsch*, the almost stagnant waters of which seem to mark the position of an ancient strait between the Caspian and the sea of *Azof*.

The sea of *Azof* was more correctly styled the *Palus Mæotis* by the ancients; it is formed by the Don and other rivers and is not a sea but a marshy lake, on a sandy, and in some places, an oozy bottom. No rock has been observed in any part of it; its turbid waters^g are well stored with fish, but they are shallow to a great distance from the banks. The surface is about twelve inches higher in spring than in the rest of the year. That branch of the lake which is called the *Putrid Sea* has been already mentioned.

A horde of *Calmucks* inhabit the country to the east of the Don Cossacks, and are in some respects under the dominion of the military republic. They occupy the steppes by which the sea of *Azof* is separated from the Caspian; their territory is bounded by the *Manytsch* and the *Kouma*, watered on the east by the *Sarpa*, a small feeder of the *Wolga*, which flows in a contrary direction from the principal river. The chain of hills that divides the basins of the Don and the *Wolga*, extends across the steppe. The declivities on the side of the *Wolga* are steep, but a large and sloping plain descends gently towards the Don. The level of the Caspian Sea at *Astrakan*, is admitted to be lower than the Sea of *Azof* by 150 feet, the *Manytsch* has, at least, an inclination of ten feet, and the hills on the banks of that river are not perhaps higher than 200 or 300 feet above the Caspian, and 50 or 100 above the *Palus Mæotis*. It follows, therefore, that by deepening the bed of the *Manytsch*, it might be easy to form a communication between the two seas.^h Shell limestone abounds in the rocks of the steppe, which is mostly covered with verdant pastures, but some places on the east are unfruitful; a few oaks, elms and willows, display in different parts of the country their scanty

^a "Gabelle," salt tax.

^b "Recrutemens," military levies—the Russian armies are recruited by forced levies, and although the Cossacks are exempt from these, yet they are subject to a peculiar military service.—P.

^c The town is called *Tscherchaskoy* by Dr. Clarke.

^d Clarke, chap. xiii.—Tr.

^e Voronez, "Voroneje."

^f Lowitz, cited by Georgi, *Beschreibung*, t. I. p. 290.

^g Its waters are brackish but not salt.

^h "By making use of the channel of the *Manytsch*, which is already sufficiently deep, it would be easy to open a canal of communication between the two seas."

foliage. The wolf, the fox, various species of rats and mice, the marten,^a and the *felis chaus* or wild cat of the marshes,^b the stag and hare, many kinds of ducks, and lastly the dangerous scorpion spider, are the wild animals of the steppe. The number of Calmucks is not more than 50,000; they lived formerly between the Wolga and the Jaik or Ural, and belonged to that horde, the most of which fled in 1770 to Chinese Tartary, rather than submit to the vexatious oppression of Russia; such as remained faithful, agreed to cross the Wolga.^c

We have now arrived on the banks of the Wolga, and in the ancient kingdom or *khanat* of Astrakan. We shall only describe in this place the lower part of it, or the steppe, which corresponds nearly with the Russian government of the same name, but extends also into the eastern part of the province of Saratow. The Wolga, the largest river in Europe, flows through that country into the Caspian sea. A rivulet rises in the forests of the table-land of Waldai, in the neighbourhood of Wolchino-Werchowie, traverses the lakes Oselok, Piana and Wolga, receives the waters of the lake Seliger, and becomes navigable near Rjev-Wolodomir, at which place its breadth is not less than 95 feet. It then flows eastwards to Kasan, where it is enlarged by the Kama, a very great river, turns to the south, and makes apparently for the sea of Azof; but unfortunately for the commerce of the Russians, its course is determined by the position of the Wolgaic hills, and it discharges itself into the Caspian Sea. Before it receives the Kama, its breadth is upwards of 600 feet, and it is more than 1200 after its junction with that river. It encompasses many islands in the vicinity of Astrakan, and its width there during high water, is about 14 English miles.^d Guldenstedt supposes its inclination on an average to be equal to six inches and a half in every four versts of its course;^e hence, it may be calculated that the lakes which form its source, are only about 320 feet higher than its mouth. The depth of its channel varies from seven to sixteen feet. Its water, though not good, is drinkable, and it abounds with several varieties of the sturgeon and different kinds of fish. The valley of the Wolga below Ostaschow, is an extensive flat from one to twenty versts in breadth, bounded by bluffs from twenty to sixty feet in height, which exhibit the layers of argil, marl, gypsum, sandstone and coal, of which the adjoining table-land is composed. The course of the Wolga is regular and calm, but the river has undermined its banks near Nischnei-Novgorod, and, by the sinking of the ground thus occasioned, several large buildings in the town have been overturned.

The Wolga is speedily swollen by excessive rains and by the melting of the snow, so that the streams are diverted into the channels of the feeders, and the flux of their waters is thus impeded. The river during part of the winter is covered with ice through its whole extent, but there are always many apertures in the south, from which currents of air escape; hence they are termed the *lungs* of the Wolga. The *polumna* often change their position, and travellers are thus exposed to imminent danger. Carriages pass on the Wolga two months in the year, and in summer it is crowded with boats. More than five thousand barks

constructed in the well-wooded countries of Northern Russia, descend the river and are loaded with all kinds of commodities, but as these vessels cannot easily return or sail against the stream, the most of them are sold at Astrakan; and it is thought by government that the forests may in this way be speedily exhausted. The *ladia*, one sort of these barks, carry sometimes 100,000 *pouds* of salt.^f The ordinary burthen of the *kayouki* is about 35,000 *pouds*; they are laden with grain, and the *nosedj* with timber. The Wolga encircles the central table-land of Russia, and receives the streams of the Oka, the principal river in that fertile region; it communicates in the upper part of its course by the canal of *Wyshnei-Wolotchok* with the lake Ladoga and the Neva; lastly, the Kama conveys to it all the waters of eastern Russia. That large river may be thus considered the great outlet for the inland commerce of the empire. The town of Astrakan may be supposed an Alexandria on a Scythian Nile, but the river enters an inland sea which does not communicate with the ocean, and which is surrounded by countries that are inhabited by barbarous nations; still, however, the advantages which human industry may derive from the majestic courses of the Wolga and the Danube are not as yet realized.

The word Wolga, says Georgi, signifies *great* in the Sarmatian; it might have been as well had the writer explained what is meant by the *Sarmatian* language. If the old Slavonic or rather the Proto-Slavonic, which was spoken by the vassal tribes of the ancient Scythians, be understood by that incorrect term, we think the etymology not unlikely, although its accuracy cannot now be ascertained.^g The Finnic tongues furnish us with a more easy explanation. *Volgi* signifies a valley; now the bed of the Wolga forms, as it were, the great valley of Russia. The Tartars called the Wolga the *Ethele* or *Iiel*, which according to some philologists means liberal or profuse, according to others, merely the river. The last name is still retained by the Calmucks under the form of *Ichil-gad*. The most ancient designation is that of *Rha* or *Rhas*, which has been thought a corruption of the Araxes, a river in Armenia, although the two words are radically different in the Armenian language.^h The Mordwins, a Finnic tribe, still term it the *Rhaou*, a name which in their dialect is probably expressive of rain water.ⁱ All the etymologies are involved in the darkness of a remote antiquity.

The fertility of Lower Egypt depends on the overflowing of the Nile, but the province of Astrakan is not much benefited by the inundations of the Wolga. The last river does not bring along with it a rich alluvial deposit, and its waters do not fructify the ground. The country that is not inundated by the Wolga consists chiefly of heaths and downs, which, if they be not wholly sterile, are ill adapted for agriculture. As it seldom or never rains in that part of Russia, the people are obliged to water artificially every field that is cultivated on the banks of the river. It must be admitted, however, that the dry and arid heaths are covered in the beginning of spring with fine flowers and useful herbs, with asparagus, capers, horse-radish, leeks, and liquorice. The stem of the last plant grows to the height of four feet, and its roots, though sometimes as thick as a man's arm, are of an

^a "Marte-tigre," *Mustela Sarmatica*.

^b Marsh lynx, Booted lynx, Caspian lynx.

^c B. Bergmann, *Nomadische Streifereien*. *Nouv. Ann. des Voyages*, t. XII. p. 253, &c.

^d "5 leagues, or 20 versts."

^e Four versts are equal to 2 + $\frac{3}{4}$ English miles.—Tr.

^f The *poud* is equal to 40 pounds.

^g *Wolkoj*, feminine *Wolkoia* or *Wolkaia*, might have been in ancient times synonymous with *Welikj*, [great, in modern Russian.]

^h Saint Martin, *Mem. sur l'Armanie*, I. p. 38, 39, 63; II. p. 228, 403.

ⁱ Busching, *Erdbeschreibung*, I. 770. Klaproth, *Asia Polyglotta*, Vocab.

inferior quality. Salsola or glass-wort^a grows in profusion, and its quality is such as might have been anticipated from a soil so much impregnated with salt. Masses of saline crystals are observed in the beds of lakes *Elsen*, *Bagd* and several others, and the mountain of *Bogd-Ola* is crowned by a salt hill. There are two steppes in which the same substance predominates; the one situated between the Don, the Wolga and Caucasus, is called *Step-Astrakanskaia*; the other lies between the Wolga and the Ural, and is termed *Step-Kalmytzkaia*, because it was formerly inhabited by the Calmucks. Both of these immense plains, according to Pallas, must have been at one time covered with the waters of the Caspian sea. A sandy but verdant ridge rises in the eastern steppe above the plain formed by argillaceous and saline deposits. The Calmucks call it *Naryn*, and the Russians *Rynpeski*. The animals that frequent the steppes are the tarantula, the bustard, the pheasant and the *pendulino*,^b the cony^c and the *saigal*, a species of wild goat,^d of which the horns are not opaque but transparent, and which outstrips the swiftest dogs.

The fruitful country in the government of Astrakan is not large; it includes only the low districts on the banks of the Wolga, the Ural and the Terek. The vegetable productions arrive at an extraordinary size, and they consist of arbutes, gourds, and cucumbers nearly two feet in length, roots and potherbs of every kind, apples, pears, peaches, apricots, plums, cherries, mulberries and grapes. All these fruits are very large, a fact that is often repeated by the Russian writers, and the country of Astrakan might be, according to them, a terrestrial paradise. But the panegyrists are commissioned by government to persuade husbandmen to migrate to the province; foreigners may therefore judge more impartially; they may speak the truth without disguise. The great expansion of plants and fruit is not wonderful, because they are abundantly watered by artificial means; secondly, because the soil is impregnated with saline and bituminous substances; and lastly, because the heat is excessive during two months in the year. The disagreeable, watery and insipid taste by which all the vegetable productions in Astrakan are distinguished, may be accounted for by the same causes. The Delta of the Wolga may one day be a valuable acquisition to the industrious Russians, but they have to struggle at present against natural disadvantages. The heat is most oppressive; the thermometer rises sometimes so high as 103° of Fahrenheit. The air in a great part of the government is unwholesome from the saline exhalations with which it is surcharged. The north winds are often the harbingers of so intense a cold, that the thermometer falls to 22° below zero. The principal arm of the Wolga, which is 2300 feet in breadth, is frozen in winter; heavy sledges are dragged on it, and the ice remains about two months. The town of Astrakan found the expense of keeping up its vineyards too great, and it was decreed that they should be sold to individuals. The grapes are very large and watery; the little wine made from them is drunk by the common people. The attempts to cultivate the olive have failed, and the apricot does not succeed unless much care be bestowed on it; the trees are often destroyed by severe frosts. Thus excessive heat and extreme cold are the great disadvantages of the climate.

The town of Astrakan is inhabited by 40,000 individuals,

but in the fishing season the population amounts sometimes to 70,000. It is built on one of the islands formed by the Wolga; its numerous churches, its orchards and vineyards, its large suburbs and its citadel, which, like those of Kasan, Nischnei-Novgorod, and Moscow, is called the *Krem* or *Kremlin*, give it an imposing appearance; but the houses are for the most part built of wood, the streets are dirty and unpaved, and the ooze and the putrid fish that are left on the land during the vernal inundations, render the air disagreeable and unhealthy. The trade with Persia and India is considerable, and many of the people are employed in the manufacture of cotton, or in dressing morocco leather. Russians, Armenians, Tartars, Hindoos and Persians might be mentioned among the inhabitants. The followers of Brahma form a society of bachelors; they reside in a large wooden building without windows; their refectories are clean, and well provided with fruits and pastry. The greater number live by usury. The Tartars are retail traders, but many of them are much in debt to the Hindoos, and they are often compelled to impignorate and grant the *usufruct* of their wives to their creditors. The *Achrichanski* Tartars are sprung from the Hindoos and the Tartar women.^e *Krasnoarsk* and *Ienotaievsk*, two other towns on the Wolga, are comparatively of little consequence; *Kisliar*, a place of trade, with its vineyards, and *Mosdok*, are most important, but they are built on the Terek in that narrow frontier, which according to our division is situated beyond the limits of Europe.

The country of the Uralian Cossacks lies on the other side of the steppe which separates the Wolga from the Ural; it forms a long and narrow belt, consisting chiefly of sandy and marshy land, and extends along the course of the last river. The Ural descends from the Ural mountains, and it is so called in conformity to a decree of Catherine II. Its waters flow in a channel without rocks, and are sufficiently deep to be navigable for small vessels, but its solitary banks are covered with reeds, and the noise and bustle of trade have not been heard since the destruction of *Saraitshik*, a Tartar city.^f The Cossacks still repair to the fishing stations at fixed seasons of the year, and it is a curious spectacle to see them assembled when the river is frozen. Some thousand fishermen arrive in sledges at a place appointed, and every man is provided with a spear, several poles, and other instruments. They arrange themselves in a long line, and if any one should attempt to get the start of the others, their instruments would be instantly broken by the guards of the station. The men, however, evince often a great degree of impatience, and the same feeling appears to be communicated to the horses which are trained for these expeditions. As soon as the *hetman of the fishers* departs in his sledge, all the rest fly after him with the rapidity of the wind. The ice is cut, their spears are cast, and a forest of poles rises on the river. Fishmongers, assembled even from the interior of the empire, purchase the fish before they are taken out of the water, and in a short time the sturgeon, the *huso* and *sevruga*, quiver on the ice. The couriers of "the great Uralian army," travel at full gallop, and deposit the spoils at the court of Petersburg. The value of the fish (including that of the caviar and isinglass) imported into the interior, amounts to two millions of roubles, and the duties imposed by the "*ministers of the army*," is not

^a *Kaligeniculatum*.

^b *Parus Pendulinus*, Remiz.

^c "Lievres-terriers," *Lepus pusillus*, L. *Lagomys pusilla*, Cuv. Soul-gan or Calling hare.—P.

^d *Antilope Saiga*, L.

^e Heym, quoted by Georgi, Beschreib. II. p. 947.

^f It is called *Saracanco* by travellers.

less than 100,000, a sum by which the fund accumulated by that administration is principally formed. The Uralian Cossacks, enriched by the sale of their fish, and also by their cattle, horses and wool, live in affluence; their houses, at least those in Uralsk or the capital, are commodious and clean, strangers are hospitably received, the dress of the inmates corresponds with their fortune, and the turbans or head dresses of the women are adorned with pearls.^b These Cossacks belong to the sect of the *Roskolniki*, and for that reason they abhor tobacco, and retain their beards.

The people are now at peace with the Russians, but their history is filled with the recital of wars and bloodshed. Freebooters separated from the Don Cossacks, and settled along the course of the lower Wolga, travellers, merchants and ambassadors were alike exposed to their attacks. Ivan II. sent an army against them, and those that were made prisoners suffered dreadful torments; they were suspended by the ribs to hooks of iron. Driven from the Wolga, they laid waste the shores of the Caspian sea, and, having taken Saraitschik, they put every inhabitant to the sword, plundered the houses, and opened the graves in the expectation of finding concealed wealth. Their independent republic

founded on the banks of the Ural, then the Jaik, submitted to the protection of Russia, and preserved its privileges. But the sanguinary revolt of Pugatschew was not viewed with indifference by these fierce and restless men; they flocked to his standard, and obeyed him as their chief. Vanquished at last by the Russians, their national assemblies were abolished, and their artillery destroyed. The present population is supposed not to exceed 30,000 individuals of both sexes.

The same people undertook in the sixteenth and in the beginning of the eighteenth century, two remarkable expeditions; in the first they demolished Urganz, a great commercial city near the lake Aral; in the second they took Khivah, and kept possession of it for a twelvemonth; it was then retaken by surprise, and in consequence of the negligence of the guard. In both the one and the other, they have left a memorable example of what may be achieved by a few brave and resolute men.

^a They dress in cotton and silk, in the Asiatic costume, and the *soroka*, or head dress of the women, is adorned with fine pearls, and a shawl of Persian silk."

BOOK CV.

EUROPE.

Eastern Russia. Finno-Huns or Uralians.

WE shall examine the northern and eastern countries in European Russia, after having made some remarks on the ancient race that appears to have inhabited the whole of that region. The *Laplanders*, *Finns*, *Esthoniens*, *Permians* or *Biarmians*, *Wotiaks*, *Woguls*, *Ostiaks of the Obi*, *Tchuwashes*, *Tcheremisses*, and some other tribes, are sprung from one and the same stock. Their physiognomy, language and customs are sufficient proofs of their relationship; at the same time, it cannot be denied that such differences exist amongst them, as to entitle us to infer that there are difficulties connected with their early history, which can never be satisfactorily elucidated. There might have been originally two distinct races, blended together by repeated intermixture, or Asiatic hordes might have subdued the country, mingled with the conquered, and by their intercourse, and by the usurpation of a dominant tribe, the national character of the people might have been modified. The Finns were settled during the age of Tacitus and Strabo in the central provinces of Poland; they were denominated *Fenni* by the historian, and *Zoumi* by the geographer. The accuracy of the accounts given by these writers has been since confirmed, and the language still spoken in Lithuania is a monument of its former inhabitants. The *Wiatiches*, an ancient tribe in the government of Orel, were, according to Nestor, of Finnic origin. It has been seen that the Hungarian is connected with the Finnic tongues, and the migrations in central Russia, which are recorded in the history of that once powerful and numerous people, may be traced by the names of Susdal, the river Ugra, and the town of Lebedian. Many geographical terms indicate the wide dispersion of the Finnic tribes. The word *ioug*, which denotes a river, is found among the feeders of the Don; the name of the Wolga is probably of Finno-Hungarian origin, and the Ural mountains are also known by the Finnic name *Poyas*, which signifies summits. It is very likely that the particular division of the horizon in use among the Finlanders, is part of an astronomical system, which must have been formed between the fortieth and fiftieth parallels, and consequent-

^a Mnemosyne, a Journal published in Finland.

^b Adelung does not consider the Permians and Sirmiains, the Woguls, the Ostiaks of the Obi, the Tcheremisses, the Wotiaks and the Mordwins, as belonging to the Finnish race, but each of them as forming a people of distinct and peculiar origin.—P.

^c *Skoloti* was the true name of the Scythians; it appears to have been derived from a Zend word signifying a head or chief.

A soldier of the Scythian guard, which was intrusted with the police of Athens, is introduced in the Thesmophoriazusa of Aristophanes. The Scythian cannot pronounce the *ph* or *f*, but confounds it with the *p*; now, no Polish words that are not of foreign importation, commence with an *f*. The same person changes frequently the masculine and feminine genders into the neuter, and terminates the last syllable in *o*, which is still a common

ly the civilization of the Finns must have commenced on the shores of the Black and Caspian seas.^a But although it be demonstrated that Finnic tribes peopled northern, eastern and southern Russia at a very remote epoch, it does not follow that they occupied exclusively, or even ruled over that immense region, and it is almost superfluous to add, that several questions connected with the subject cannot be readily answered.^b

Thus it has been asked if the Scythians were Finns. Although no certain information can be obtained, it is in our opinion more probable that the former people were composed of numerous hordes, some of which led a wandering life, others cultivated the ground, and both were in a state of vassalage, or under the dominion of a ruling tribe. Such has ever been the political condition of the Asiatic nations in the centre and the west. The introduction of castes might have taken place after this union of tribes; at all events, the system of castes is less applicable than that of aggregate tribes to the conquering Scythians, who, according to the testimony of Herodotus, migrated from Media. It is thus that the seemingly contradictory statements of the ancients concerning the Scythians may be best reconciled. The dominant tribe in Europe on the Tanais and the Borysthenes was the same as the one that ruled in Asia on the banks of the Oxus and Iaxartes; hence the identity of their national name, a circumstance that cannot be attributed to chance. The people who submitted to their empire were not all of the same race; in Europe, they consisted probably of Finns on the Tanais, and Slavonians on the Borysthenes. The resemblance observed between these two languages and some words cited by Aristophanes and Pliny serves to confirm our hypothesis.^c The *royal Scythians*, the rulers of the empire, spoke neither the Slavonic, Finnic, Gothic nor German. The primitives in their language were connected with others in the ancient Zend, the Persian and the Sanscrit. *Exampaios*, which Herodotus tells us signifies a sacred road, may be derived from the Zend adjective *eschae*, pure, luminous, holy, and *pad* or *pai*, a road; the last word is a root common to the Persian and San-

termination of the Russian neuters. Lastly, the Scythian, like the Slavonian, uses the *t* instead of the *theta* or *th* of the Greeks. These are striking indications of the Slavonic character of the Scythians who were sold to the Athenians. But those people were not the same as the royal Scythians; they were their *serfs* or vassals, who were brought into Greece as slaves and mercenaries. Their inability to pronounce not only the Greek and Scandinavian *theta*, but the *χ* or *ch* of the Greeks and Germans, proves at least that they were not Goths, and we believe that none of the Scythian words cited by Herodotus are of Gothic origin. *Silis*, the Scythian name of the Tanais, is derived from the Slavonic *silen*, the strong or powerful. Slavonic roots and compounds may be traced in the names of the kings of the Bosphorus, and the chiefs of Olbia. The Scythians were probably confounded with the mass of the nations over which they ruled

scrit.^a *Arima*, one, is *oima* in Zend, and *Aiorpata*,^b or those who kill men, the Scythian denomination of the Amazons, is compounded of *aior*, a man, *air* in the Armenian and Zend, and *weyor* in some Caucasian dialects, and *pata*, which signifies equally to kill and to subdue. *Elo-Syros* or the Scythian Apollo seems to have derived his name from *aita*, father, and *surya*, light, and *Thamimasadas*, or their Neptune, means the son of the waves. Our researches cannot be presented to the public in their present shape; they were interrupted by the death of a friend, who gave us access to all the treasures of his library; still we believe in the conclusion at which we have arrived, and the subject may ere long be ably elucidated by a distinguished philologist.^c

Were the Huns of Finnic origin? That question, which is more intricate than the former, has only been lately agitated, and it is not likely to be soon resolved—Yet it may be one day answered in the same way as the other concerning the Scythians. All the hereditary deformity of the Mongols or Calmucks, the dominant tribe, was united in the person of Attila; but the *Chuni* and the *Unni* of the Greek geographers, the *Kuns* of the Hungarians, and the European Huns, a race closely connected with the Finnic tribes, made up the great body of the Hunnic army and nation.

We now pass to an easier task, that of indicating the geographical position of the Finno-Hunnic people. The race is dispersed from Scandinavia to the north of Asia, and from the last region to the Wolga and the Caspian sea. Their red or yellow hair, prominent cheek bones, and sallow complexion, their thin beard and large occiput are characteristic of their physiognomy; but the Woguls and some Laplanders may be distinguished by their flat features, and dark and coarse hair. Forests and places in the neighbourhood of marshes have been ever their favourite abodes, hunting and fishing their chief occupations. The Russians have always called them *Tchudes*, or strangers; the Scandinavians and Goths termed them *Finne*, a word which is probably derived from *Fiende*, an enemy, or *Fen*, a marsh. The name *Fenni* cannot be of modern date, since it was used by Tacitus; but it remained wholly unknown to the people to whom it was applied. The ancient national name of the Finns is now lost; it is even doubtful if they had any. They style themselves at present the *Sami*, *Suomi* and *Suomi-Lainen* or the people of the country. The early part of their history is uncertain and fabulous; indeed, with the exception of the Huns and Magiars or Hungarians, none of these nations, although very ancient, populous and widely scattered, have ever become powerful. Their national existence has been transitory, never permanent. No conqueror was ever sprung from them; on the contrary, in those ages, the history of which is faithfully recorded, they have always been the victims or dupes of more active and enterprising neighbours. No annals of their achievements were ever written; their history can only be collected from that of their conquerors—the Scandinavian Goths and the Russians.

Mention is made, in the ninth and tenth centuries, of the Finns, Permians, Laplanders and other tribes that are now extinct, or exist no longer under the same name, in the Sagas, in Nestor, and in some Russian and Scandina-

vian monuments. The Finnic nations settled on the banks of the Wolga and in Siberia, were unknown before the conquest of those countries by the Russians. The same people, it is said, were alluded to in the *Edda*, the ancient system of Icelandic and Runic mythology. "They were the dwarfs who lived under ground, extracted metals from the depths of the earth, practised sorcery and magic, and often deceived the gods of Asgard." Their religious notions were those of a barbarous people; their credulity converted every natural object into an idol. *Jumala* was the name of the supreme being, and they consecrated, like the Germans, their forests and mountains. The Permians appear to have been the only tribe amongst them that had a large temple, or, at least, a sacred enclosure adorned with altars. The Icelandic historians denominate that people the *Biarmians*, and the Russians call them the *Permiaki*. It appears, however, that in the middle ages, the Scandinavian pirates gave the name of Permian to the whole country between the White Sea and the Ural. *Other*, who sailed from Halogaland, a province of Norway, discovered the Permians on the Dwina, in the ninth century. To plunder the temple of *Jumala* was the great end of the Scandinavian piratical incursions, and the same edifice was the subject of poetical descriptions, which are probably much exaggerated. According to these accounts, the temple was constructed with much art; the wood was of a rare quality, and it was inlaid with gold and precious stones, of which the lustre was reflected on every surrounding object. A golden crown, embellished with twelve diamonds, was placed on the head of the god, his collar was worth 300 mares of gold, and the rest of his dress exceeded in value three Greek vessels richly laden. A gold vase rested on the knees of the statue; it might have held as much water as would have quenched the thirst of four men, but it was filled with precious stones and costly metals. So much wealth attracted all the corsairs of the north, and it was thought a proof of bravery to have carried away an ornament from the temple. Many men set out every year from Halogaland, and several kings of Norway went to pillage Permian, and returned with a rich booty. But Scandinavian mariners, who were not addicted to piracy, visited the country for commercial purposes.^d The Permians were wealthy, and their country was the theatre of an extensive commerce. The Persians and Indians transported their merchandise across the Caspian, and ascended the Wolga and the Kama to the ancient town of *Tcherdyn* on the *Kolva*, a place of great trade, from which the Permians carried the goods to the banks of the *Petschora*, or the shores of the Frozen Sea, where they exchanged them for pelisses and other articles that were sold in the east. Many of their towns now in ruins prove at least that they were once inhabited by flourishing and civilized people. The caravans of the Persians, Armenians and other Asiatic nations repaired to *Bolgar*, the ancient capital of the Bulgarians. That fact cannot now be disputed; it has been placed beyond a doubt by the Arabic coins and monumental inscriptions that have been from time to time discovered.^e Permian was not exposed to the incursions of the Norwegians after the year 1217; but before that period, (probably in the eleventh or twelfth century,) the country was conquered by the republic of

^a It might be also added, to the Teutonic languages—Dutch, *pad*, Eng. *path*, Germ. *pfad*.

^b *Otoppara*, Edit. Weasel.

^c "Arméniste"—Saint Martin?

^d St. Olaf's Saga, ch. cxlii, in Snorro's *Heims-Kringla*.

^e Rasmussen, Mémoires sur les relations commerciales des Arabes avec la Scandinavie à travers la Russie.

Novgorod, and Russian colonists were sent by it to keep the inhabitants in subjection. Christianity was introduced amongst them in 1372 by Stephen, a monk and afterwards a bishop. The city of Novgorod and the Grand Duke Vassili Dmitrivich contended about the possession of Permian in the end of the fourteenth or beginning of the fifteenth century, and the citizens were at last compelled to relinquish all their claims. The Permians retained for some time the liberty of choosing their magistrates, but the czar Ivan^a first appointed a governor in 1543, and the subordinate offices were held by the most distinguished of the natives. The descendants of that populous and flourishing nation are now reduced to an insignificant tribe, that has lost in a great degree its national character, and even its language, by its union with the Russians. The *Siriaines*,^b who inhabit the government of Wologda, do not differ from the Permians, and, like them, are called *Komi*. The *Wotiaki*, or the ancient *Woti* of the Novgorodians, may be included with these two tribes. Such are the three branches of the Uralian Finns.

The *Woguls* inhabit the confines of Asia, on the east, or rather on the north-east of the Uralian Finns; and, as their language abounds in Hungarian words, they have been considered the ancestors of the Magiars. But we are inclined to suppose them of Calmuck origin from their personal deformity. They might have been subdued by the Hungarians in ancient times, and compelled to adopt their language. The Hanoverians have left us an example of the same kind, relatively to the Wends of Dannenberg. The *Ostiaks* of the *Obi* are a tribe of the same kind; their history is unknown, and it is only by their dialect that their connexion can be proved with the Finns generally, and the Hungarians in particular. These *Iougorian* or *Ougorian* tribes undoubtedly constituted a part of the Magyar empire; but the nucleus of that empire, or the first country of the Hungarians, must be sought in more southern latitudes, in less sterile and more populous regions.

The second branch of the nation is made up of the western Finns, or the Finns on the Baltic, who were successively discovered during the expeditions of the Swedes and the Danes, which were continued at different intervals from the ninth to the twelfth century. Their principal tribes, the *Quaines*^c or *Cayanians*, the *Ymis*, *Iemes* or *Haines*, the *Wesses*, the *Kyriales*, the *Esthonians*, and the *Livonians*, appear to have been, at that period, less civilized than the Permians; but they had, however, their religious notions, some national songs, and were not perhaps ignorant of the art of writing in Runic characters. Many Gothic words, it may be easily supposed, might have been introduced into their language, a natural consequence not only of their intercourse with the Swedes, Danes and Germans, but of their more ancient connexion with the Goths themselves. Their customs and mythological traditions might have been partly borrowed from the same people. These tribes, though harassed, and in a great measure subdued by the Scandinavians, escaped (thanks to their position) the more degrading and oppressive yoke of the Mongol-Tartars and Russian conquerors. Thus, notwithstanding the influence of

the Goths and Germans, they still retain the most characteristic qualities of the Finnic race. They consist at present of the *Livonians*,^d or descendants of the ancient inhabitants of Livonia, the *Esthonians*^e in Esthonia, the *Ischores* in Ingria, the *Finlanders* or *Finns* proper in the country to which they have given their name, the *Quaines* or *Cayanians*, who form only a northern subdivision of the Finlanders, and are now scattered on the shores of Norwegian Lapland, and the *Carelians* or *Kyriales*, or people under the dominion of a king,^f whose country extends to Olonetz, and who were in ancient times connected with the *Wotiaks* and *Siriaines*.

The geographer observes on the north of the western Finns, and in the northern extremity of Europe, a people of pygmies mixed with some families of an ordinary size; but the personal deformity of the *Woguls* predominates, and their language resembles the Hungarian more than the other western Finnic dialects. The cause of the anomaly shall be afterwards examined in its proper place.

The Finns on the Wolga, or the Bulgarian Finns, form the third great branch of the nation. They are sprung from the aborigines, or at all events from the earliest known inhabitants of the regions watered by the great river of Russia. They were in ancient times oppressed not only by the Huns and Roxolani, the last of whom were perhaps of Gothic origin, but by the Hungarians, the Comans or Kumans, who were a branch of the Hungarians, and the Petchenegues or Patzinakites. The Bulgarians and Chazars founded empires in these countries, but their history is little known. The Mongol-Tartars flocked thither, and the Russian czars extended their dominions and Slavonic system of colonization over this confused mass of nations. It is not wonderful that the physical character or moral condition of a people so often subdued and so often oppressed by conquering hordes, has been modified or changed. The Wolgaic Finns are not unlike the Tartars, but the marks of their ancient origin are not wholly lost. The *Tcheremisses* call themselves *Mari*, and reside in the government of Casan; their dialect is mixed with the Tartar. The *Tchuwashes*, or, according to ancient travellers, the *Souiasches*, who adored *Thor*, the god of the Scandinavians, and the *Mordwins*, inhabit the governments of Nisihgorod and Casan. The latter are divided into two distinct tribes, that speak different dialects; but although they have now mixed with each other, the one tribe is called *Mokschad* and the other *Ersad*.^g The *Meschcheriaks* are composed of Turks and Finns; but their Finnic character is very imperfectly preserved. The *Teptiars*, another mixture of the same people, in the government of Orenburg, may still be considered a Finnic branch. The ancient identity between the Baschkirs and Hungarians is founded on the testimony of Rubruquis, a traveller of the fourteenth century, but that tribe, though of mixed origin, is not now different from the Tartar hordes.

All the Finnic nations at present in Russia form a population of nearly three millions. The western Finns amount to 1,800,000, the Uralian Finns to 220,000, and the Wolgaic to 900,000.

Having mentioned briefly the nations in eastern Russia,

^a Ivan or Iwan is in Russian synonymous with John.—Tr.

^b Ziriaines, Syriaines.

^c The Finns who have settled in Lapland are called Quans.—P.

^d "Lives," Liwi.

^e "Esthes," Ehsten, (Germ.)

^f From *Karalaus*, a king, in Lithuanian, and probably in ancient Slavonic; or from *Kyrios*, the Greek title of the Czars.

^g *Ersenie*, in Russian.

we shall attempt to describe the countries which they inhabit. The governments are so extensive that they may be considered as so many separate regions or physical subdivisions.^a The large government of Orenburg or Ufa is not less, nay it is larger than the whole Prussian monarchy; but a great part of it is uninhabited, and its population does not exceed a million of individuals. The *Bielaja*, a feeder of the Kama, waters the northern districts, and its white and turbid streams flow on a bed of marl. It passes at first between high limestone rocks, abounding in caverns, and is confined near its confluence by calcareous and argillaceous hills. The bones of elephants have been washed from its banks by inundations; its waters are, for the most part, exhausted in summer, and it is ill adapted for navigation. The *Sim*, another river in the same country, waters a calcareous district, and is wholly lost during summer in a subterranean cavity. A branch from it flows during the spring in an open channel, and is enlarged by the principal river at the distance of a verst and a half beyond its entrance into the cavern. Some notice has been already taken of the Ural, which waters the southern districts of the government. The northern part of the same region is crowned by the southern chains of the great Uralian range, which has been included in our account of Siberia. These chains abound in iron and copper; a great quantity of ore is obtained from them, and it is not many years since 4,110 workmen^b were employed in forging iron, and 4,971 were engaged in the copper works. The mountains become gradually lower beyond^c the summit of *Pawdinskoi-Kamen*, which is about 6,800 feet above the level of the Caspian sea. The Bashkirian Urals form a long ridge of hills on the west of the Ural, but none of their summits are distinctly marked; they are covered with a thin layer of earth, and some stunted birch, alder and aspen trees. These hills descend on one side towards the channel of the Ural, and on the other towards the great valley of the Wolga. The only name by which they are known is that of *Obstchei-Sirt*, a term that signifies mountains common to all, and serves to distinguish them from the other Uralian districts in which the forests are set apart for the use of the mines. Beds of tertiary sandstone, shell limestone, and sandstone breccia, mixed with clay and marl, are the component parts of this ridge, which extends into the government of Astrakan, and terminates in the sandy hills of *Rynpeski*.

Each basin and each group might form the subject of geological remarks in a detailed system of physical geography; but we must choose from such a variety, and confine ourselves to what appears most worthy of notice. A series of hills near the river *Dioma* exhibits the phenomenon of isolated masses of fine and compact granite, rising in the form of immense crystals. The workmen of the mines point them out to strangers, and call them *ostrowi* or *the islands*.^d There are many grottoes and caverns^e in the basin of the *Ik*, in which sandstone, limestone and alabaster predominate. The basin of the *Sok* passes into the government of Simbirsk, and a chain of hills, called

the *Socolo-Gori*, or Falcon mountains, extends in a direction parallel to its course, and follows the river to the Wolga; although they appear to be formed of transition rocks, springs impregnated with sulphur rush from their sides. Twelve large sulphur springs were observed by Pallas within the distance of thirty versts, all of them situated in the neighbourhood of Sergiewsk near the banks of the small river Surgut, and those of the Schumbut, a rivulet that falls into it. These springs are never frozen, and so much sulphur is deposited from them, that mines were formerly worked in the district. A large stream enters a deep basin, surrounded by calcareous rocks, and forms the *Sulphur Lake* or *Sernoie-Ozero*, which is five versts distant from the village of *Ischtulkina*. The water of the lake is transparent, and strata of yellow and olive-coloured sulphur are observed in its channel. The surrounding atmosphere, even at the distance of two versts, is infected with a very disagreeable odour. A brook that issues from it, is so turbid and white that the Tartars have given it the descriptive name of *Uran-Ly* or *curdled milk*, the Russians call it *Moloschnaia reka*, or *the river of milk*. Beds of ashes and calcined stones were discovered by Pallas in the vicinity. A large spring of liquid asphaltum rises near Semenovo; pits are dug lower down in the direction of Sergiewsk, and the same substance is extracted from them. The steep banks of the Wolga near Kostitchi abound in bitumen,^f which is now made into sealing wax. In the same banks near Sernoie-Gorodok crystals of sulphur as transparent as amber are found imbedded in limestone. It is unfortunate that such a country has not been more frequently visited by physical geographers.^g

Orenburg is the only town of much importance in the government; it forms a point of contact between Asia and Europe, its population exceeds 20,000 souls, it is surrounded with fortifications, and it is thus a place of defence against the incursions of the independent Tartars. The Russian caravans that repair to Bucharia, and the Bucharian caravans, by which the merchandise of Asia is conveyed into Russia, pass through the town. The Russians and Bucharians strive to cheat each other, and to monopolize the trade; the Armenian has engaged in the contest, but the Israelite has not hitherto taken any active part in it. The Bucharians traverse in their caravans almost the whole of Asia from one end to the other; China, India, Persia and Russia are some of the countries that they visit. Gold dust, Persian pieces of money, lapis lazuli, rubies and other precious stones from India, raw and wrought cotton, sheep and lamb skins, and many other articles, are conveyed by these traders into Russia. The Bucharians travel in caravans of twenty or thirty merchants, and each individual has from five to ten camels loaded with goods, but some of their caravans consist of three or four hundred camels. They are obliged to pass the territory of the Kirguis-Cossacks, who exact from them two ducats for every camel; the merchants receive in exchange an escort of cavalry, but the guard is not always a security against their being pillaged.

The Kirguis are styled the subjects of the czar, an ho-

^a "Physical regions or sub-regions."

^b "Ouvriers-maitres," free workmen.

^c i. e. to the south. The Bashkirian Ural diverges from that point.—M.B.

^d Georgi, I. p. 158.

^e "Eboulemens de terre"—sink-holes?—P.

^f "In the bluffs of the Wolga, near Kostitchi, there is a limestone rock impregnated with bitumen."

^g Pallas, Voyages, I. p. 180—195. Mémoires sur l'histoire de Russie, par M. Muller, t. IV. p. 451. Rytshkow, Topographia Orenburgskaia, Petersburg, 1762. See the German translation of the last work by Busching, (Magasin Hist. Geog.)

nour of which they are wholly unworthy ; they bring every year to Orenburg about sixty thousand sheep and ten thousand horses ; they export different kinds of cloth, tin, glass, coral beads, and other frivolous ornaments, which serve to adorn their women or horses.

They likewise purchase a great many eagles ; these birds are highly prized by the Kirguis, who train them to hunt the wolf, the fox and the gazelle. Every eagle is not of the same value ; a good judge knows from its appearance and certain marks, whether it can be easily trained ; he will part with a swift horse for one, and not give a sheep for another.

The imports of all the towns in the district and in a small part of Siberia, amount to 3,000,000 roubles ; the exports do not exceed a third part of that sum. The town of Orenburg is a place of banishment, and one of its largest buildings is the workhouse erected by Reimsdorf, the philanthropic governor ; more than a thousand criminals are sometimes confined in it. *Ufa*, the capital of the government, is situated in the centre of the country, and peopled by 6000 souls. *Troizsk* is a commercial town, and the Kirguis of the middle horde repair to it. The only other places of any consequence are *Tschelebinsk*, a small town with a population of 1000 inhabitants,^a and *Kargala*, a large burgh, at which the Tartars of Casan carry on a flourishing trade.

All the people in the government amount to 1,000,000 ; one half of them are Russians, and members of the Greek church ; the rest are Mahometans, and differ little from the Tartars in their manners and customs. The Bashkirs, however, may be distinguished from their neighbours ; they are sprung from the Hungarians and Tartars, and their mussulman rites are mixed with the ceremonies of a primitive and rude worship. Sacrifices are offered to the sun, the head of a horse is placed near their hives, and the festival of the plough is not widely different from a religious observance of the Chinese. The *Mollah*, or priest, who officiates at the marriage ceremony, presents an arrow to the bridegroom, and inculcates the necessity of bravery to enable him to protect his wife. No traces of their ancient language are left, and a Tartar dialect is now spoken by all of them. Their wealth consists in cattle, horses and bees ; their food in winter is butcher meat, cakes and honey. A large bottle filled with *koumiss*, a strong drink made from mare's milk, is the great ornament of their dirty cottages. They drink the juice of the birch tree in spring, a liquor which purifies the blood and restores them to health ; they become fat, like their flocks, in the fine weather ; their principal sustenance is then fresh milk, and their days are spent in rural amusements or pastoral labour. The bear is very fond of honey, and many of these animals are caught in the well-contrived snares with which the Bashkirs surround their innumerable hives. The troops that they furnish to the Russian armies are armed with a bow, a lance, a helmet and a coat of mail. The *Meschtscheriaks* emigrated in the fourteenth century, from near the mouth of the Oka, in the neighbourhood of Nischnei-Novgorod ; a few of them live in the country of the Bashkirs, but they may be easily distinguished from the other inhabitants by their barbarous

and singular dress, which is made of horses' hides.^o The Teptiars are a mixture of Tartars, Woigaic Finns and Bashkirs, who united with each other after the destruction of the kingdom of Casan. Statute labour is exacted from them by the Russians, but they are exempt from taxes.

The government of *Saratow* is made up of two distinct regions. The part on the east of the Wolga forms the commencement of the saline and sandy steppe which has been already mentioned in our account of Astrakan. The quantity of salt taken every year from lake Elton is not less than five millions of *pouds*.^c The western part of the government differs little from the other regions in central Russia ; it produces rye and tobacco, but is ill adapted for the vine. The desert appearance of the country along the Wolga has been changed by the industrious colonists from Germany ; the number of these inhabitants is not fewer than 110,000, and the most of them belong to the reformed church.

The town of *Saratow* on the Wolga is a place of trade ; the salt of lake Elton is carried thither, but the population does not exceed 7000 souls. *Sarepta*, a settlement of the Moravian brethren, is a cheerful town ; all the inhabitants are artisans or shopkeepers : they have manufactures of velvet, cotton and linen ; many of them are employed in weaving stockings, making caps, dressing leather and preparing tobacco. Several Tartar tribes^d are supplied with all their utensils and articles of household furniture from the town of Sarepta. Royal manufactories have been established at *Ista*, its tapestry^e is sent to Petersburg, and the population is rapidly increasing.^f

The government of Simbirsk may be compared to the last, but the climate is colder, the vine disappears and the arbuté does not always ripen ; still it is fertile in grain and pasture. The more equable temperature is favourable to the health of the people ; the inhabitants are not so widely scattered, they have made greater advances in civilization. Grain and fruits are exported, a great quantity of wheat is raised, and extensive orchards form thick woods in the neighbourhood of the villages.^g

Simbirsk, which is peopled by 15,000 souls, and *Sysran* with a population of 9000, are the largest towns in the government. The Kasimof Tartars sell at *Samara* the lamb skins which they purchase from the Kirguis, and which are much valued by the Russians. An ancient *tumulus* is situated near the town ; according to tradition, it contains the ashes of a very powerful Tartar monarch, but his name is now forgotten. The hill or tumulus is called *Zarew-Kurgan*, and large serpents, some of them more than six feet in length, are frequently seen among the old trees that grow on its summit. Many reptiles of the same kind appear to have congregated in the royal tombs.

The angle which the Wolga forms at *Samara*, marks the southern limit of the Uralian and the commencement of the Caspian climate. Excessive heat is seldom felt, the succession of the seasons becomes regular, and plants are in blossom before the middle of April ; the fields are then covered with the Siberian pasque-flower, and the wild tulip abounds in the woods.

The Kama enters the Wolga in the government of Ka-

^a " 500 inhabitants." ^b Klaproth, *Asia polyglotta*, p. 222.
^c Two hundred millions of pounds. ^d " The Calmuck tribes."
^e " Government has established a manufactory of tapestry at *Ista*, and its population is rapidly increasing." *Issa* or *Ista* is in the government of Penza. See vol. VI. p. 593, of the original.

^f Notes sur la statistique du gouvernement de Saratow, (Herrmann, *Journal de Statistique*, Première partie, t. I. p. 72—252.)

^g Description of the government of Simbirsk, in the *Statistical Journal of Russia*, 3d year, vol. II. p. 103.

san, and the extensive plains near the confluence of the two rivers are fruitful in rye, barley, buck-wheat, millet and hemp. The forests on the south and west of the Wolga, consist mostly of oaks, but the opposite banks are planted with pines and birch trees. The flax crops are sometimes destroyed by the severity of the weather, and the fruits in the orchards are of a very ordinary quality. The climate resembles that of northern Russia, not in the excess, but rather in the duration of the cold, in the keen air of spring, and in the frequent recurrence of morning frosts.

Kasan,^a *Kosan* and *Oson* are the different names of a town of 50,000 inhabitants,^b and one of the most important in the Russian empire. Its Tartar *krenlin*, its fifty churches and its eleven convents are placed on a number of hills, on which the greater part of the town is built. The meadows that surround it on three sides are inundated in spring by the Wolga, and it then appears like an island in a lake. The houses are built of wood, the streets are paved with timber, and the stranger observes all the defects of the Russian towns. But *Kasan* is distinguished by the industry of its inhabitants, and the Russian and Tartar townsmen are enriched by their commerce with Siberia, and by their trade in Russia and Morocco leather. The university does all it can to promote the diffusion of knowledge; several of its members have been sent on scientific expeditions into the interior. A seminary for the education of missionaries and priests is established in the convent of Silandovo, and the children of the Tartars, Tcheremisses and Mordwins resort to it. *Kasan* was the ancient capital of a Tartar kingdom, and was taken by the Russians in 1552; the wealthy repair to it in the winter, and they rival the nobles of Moscow in the luxury of the table, and in sumptuous entertainments.^c The other towns in the government, such as *Kosmodemiansk* and *Tcheboksary*, each of which contains 5000 souls, are not of much importance. Busching tells us that the extensive ruins of *Briakhimova* or *Bolgari*, the ancient metropolis of Great Bulgaria, are situated in the province. Arabic and Armenian inscriptions, Cufic coins, and many other remains of ancient splendour, have excited the curiosity of travellers.^d

The three governments that have been last mentioned, are inhabited by different people, who are not of Russian origin. The *Tchuwashes*, whom Brenner denominates the *Souiaski*,^e differ from the other inhabitants by their black hair, their thin beard, which descends to a point under the chin, their prominent cheek bones, their sunk eyes, and the stupid expression of the Calmucks.^f Their language contains but few Finnic words, it is equally different from the Tartar, and is probably a dialect of the ancient Hunnic.^g It is a remarkable fact in the mythological history of the tribe, that *Tor* or *Tora*, the supreme divinity, is known by the same name as the Scandinavian god of thunder. This is not a solitary instance; the secondary deities of the *Tchuwashes* are called *Borodon*, a name that corresponds with *Bore* in the Edda. The malevolent principle, the wicked god, the enemy of Thor, is termed *Seitan*, but it has been incorrectly affirmed that

Seitan was the same as the Satan of eastern nations, for the word signifies in Scandinavian a sorcerer or magician, and it is expressly said in the Edda, that Thor in his journeys through the east slew the magicians, or, in other words, erected the Odinic worship on the magical altars of the Finns. Perhaps the *Ividies* or Dryads of the Scandinavians, had some affinity with the word *ivos*, which signifies a tree in the dialect of the *Tchuwashes*. The same tribe adore the sun, and formerly sacrificed a white horse during the festival of the great luminary. They surround the tombs of their parents with pillars of stone, and offer annual victims to their manes. The *ierik* is a bunch of fifteen rose branches; it is suspended in their huts or *kils*, and worshipped as an idol. The priests are called *iomma*, a word that recalls the Finnic name of the supreme power, and a surname in the Edda of the horses of the sun. It is indeed a pity that a people whose rites are so much connected with those of other nations, was not earlier observed by men versed in the history of ancient religions. The civil customs of the *Tchuwashes* were not different from those of other barbarous tribes; the father sells his daughter, and she becomes the slave of her husband or purchaser; all the neighbours of the different proprietors assist them in collecting the harvest, and partake of a feast at the end of their labour; the same fraternal assistance and other good offices are performed gratuitously to widows and orphans.

The *Tcheremisses* inhabit the governments of Simbirsk, *Kasan*, *Wiatka* and *Nishagorod*, and although they resemble the *Tchuwashes* in the form of their features, they are a stronger and finer race of men. Their dialect is more nearly allied to the Finnic; they call themselves *Mari* or men, and distinguish the *Tchuwashes* by the compound name of *Kurk-Mari*, or mountaineers.^h Like the Mordwins, they are indigenous to the country, and their names are in all probability derived from rivers and mountains. The Russians were encouraged and assisted by the *Tcheremisses* in the conquest of *Kasan*, but many of the latter have continued faithful to the Mahometan worship. The privilege of having four wives at the same time is not abolished, and heathen prayers to the family idol precede the marriage ceremony even of those who have embraced Christianity. The pagans amongst them adore the Finnic divinity *Iouma* and his wife *Ioumonava*, and conciliate their favour by cakes or other offerings. *Aquebarem* or the god of the harvest is devoutly worshipped, and his aid is implored in one of their three great festivals.ⁱ A sorrel horse is sacrificed in the festival of the spring, and a white horse is slain on the grave of a rich man. Their priests or magicians are called *moukschan*. Some trees are cut in thick woods, the ground is levelled, and the place is thus changed into a *keremet* or sanctuary. Their country is not so large as it once was, a great part of it is inhabited by Russians, and the *Tcheremisses* live no longer as hunters or wandering shepherds, but are now devoted to agriculture, many are good husbandmen, they possess much corn and numerous flocks. The men have adopted the costume of the Russian peasants, but they still shave their heads; and the women retain their large cylin-

^a *Kasan* is a Tartar word; it signifies a caldron. "It is called *Kosan* by the *Tchuwashes*, and *Oson* by the *Tcheremisses*."

^b "During the winter season, it contains 50,000 inhabitants." Its ordinary population is much less. (17,500, Morse—10,000, Vosgien.)—P.

^c Erdmann, *Beiträge*.

^d *Lepekhn*, *Voyage*, part. I. Fræhn, *Narrative of Ibn-Foslan*.

^e Brenner, *Epit. Mosis Armeni*, p. 107.

^f Muller, *Mémoires pour l'Histoire Russe*, III. p. 305—364.

^g Klaproth, *Asia Polyglotta*, tab. III. Strahlenberg, *Europe Sept.* p. 156.

^h "Men of the high country."

ⁱ Muller, *Mémoires sur l'Histoire de Russe*, III. p. 332, 345, 382, 410. Strahlenberg, p. 346.

dricol bonnets, which are covered with fringes, glass beads, or pieces of money. Their dress in summer is very light; it consists of a single shift above a pair of trowsers, but the baubles and bells, of which the fair Tchermissemis are so fond, announce their approach at a great distance. An historian maintains incorrectly that the Tchermissemis have no calendar;^a for Pallas has shown that their year commences in the month of March.^b None of them can write, and the memory of past events is preserved by certain marks cut on a piece of wood; still, it is said, they possessed formerly written books, which no one could understand, and which were in later times devoured by the *Great Cow*.

Although the *Mordwins* or *Morduans*^c are more numerous in Penza and Nishagorod than in the governments on the eastern Wolga, they cannot be considered apart from the two people last mentioned. They have mingled with the Russians, but they are sprung from the Finns, and consist at present of three tribes, the *Mokschani*, the *Erzani*, and the *Karatai*. The last is the least populous of the three, and the two first, it was believed, spoke dialects so widely different, that persons of either tribe could hardly understand each other, an assertion which is completely refuted in the valuable tables of Klapproth, yet that distinguished scholar has included the *Erzani* only in the *Mordwins*. Their name has some affinity with *Ertem*, a province of the Patzinakites, and also with *erdæ*, an Hungarian word, which signifies a forest. The only difference between the *Erzani* and *Mokschani* consists in the comparatively barbarous state of the former; fewer among them have embraced Christianity, all are more impatient of restraint, and less accustomed to a settled life.^d The *Mordwins* are probably the descendants of the *Mordens*, who, according to Jornandes, were the vassals of the Goths under Hermanarik.^e They once occupied a wider country, and the town of Murom on the Oka, says Nestor, was the residence of their princes. They have neither temples nor idols, according to Pallas, and *schamanism*^f in its simplest form is the religion of these wandering tribes. They adore a supreme and invisible being, but their magicians or *schamans* can conciliate his favour and disarm his wrath.^g We are inclined to place more confidence in the account of Lepekhin, who declares they worship the sun, and offer sacrifices at the new moon.^{hi}

The Tartars, or, according to the more correct denomination of Klapproth, the *Turks* of Kasan, enjoy in a greater degree the blessings of civilization. Industrious, sober and generous, the conquered people are almost superior to the Russian conquerors. Their physiognomy is very different; though not a tall race of men, they may be easily distinguished from the Russians by their long beards, commanding features, and dark and piercing eyes. Strict observers of religious ordinances, abstaining from wine and whatever is not sanctioned in the Koran, they are nevertheless tolerant, hospitable and kind to Christians. Their

women appear before strangers, and Erdmann was able to describe, as an eye-witness, a Tartar marriage. The dress of the men resembles that of eastern nations, but it is necessarily modified by the nature of the climate. The women adorn themselves with pearls and jewelry, and their costume varies according to fashion. The corruption inseparable from great cities is unknown; the men are honest and the women are chaste. A family is a patriarchal monarchy, of which the husband is king. Polygamy is permitted by the laws, but few of the Tartars have more than one wife, a natural consequence of civilization. It sometimes happens, however, when the mistress of the house is old, that her lord takes a young bride, who shares his bed, though the first wife reigns, and the second claims no share of the domestic honours. These Tartars speak the Turkish or their native language^k very purely, and many of them are well acquainted with the Russian and Bucharo-Persian.^l Their commercial activity, numerous schools and different institutions place them far above the other inhabitants.

The two large governments of Wiatka and Perm are the coldest, highest and most northern, but not the most sterile portion of the central Uralian region. A large plain of argillaceous soil, in the first government, slopes gently from the north-east to the south-west, and its inequalities are mostly occasioned by the course of rivers. The heights near Sarapul and Ielabula contain copper ore and beds of schistous sandstone. The *woloks* or carrying places between the sources of the Kama and the Wiatka on one side, and the Dwina and Petschora on the other, form an extensive plain, which rises imperceptibly, and reaches the height of 620 feet above the banks of the Wolga in the neighbourhood of Kasan, or of 1200 feet above the ocean; an elevation equal to a fourth part of the ordinary altitude of the Ural mountains. Rye, barley, flax and hemp thrive in the southern districts, but the country near the sources of the two rivers is not so productive; the climate is too severe, and in many seasons the inhabitants are compelled to mix acorns or the bark of the elm and the fir tree with their flour. The population throughout the government of Wiatka amounts to 1,300,000, but many individuals emigrate for a time, and serve in the boats that ply on the Wolga.

Wiaitko,^m a place of trade, is peopled by 12,000 persons, and its grain and other agricultural produce are conveyed by the Dwina to Archangel. The inhabitants of *Sarapul* on the Kama send their vessels to Astrakan, and also exchange their commodities with the Samoiedes on the Petschora. *Sarapul* was built by Finnic or Tartar tribes, and *Wiaitko* was first known by the Russian name of *Chlinow* or *Khlinof*. *Slobodsk* is peopled by 5000 souls, and carries on a great trade in iron and copper. The ruins of many ancient Finnic towns are situated in the same province, and although the remains of the one near *Schestakow* are the most extensive, they are less remarka-

^a Lèvesque, Histoire de Russie, VII. 366. ^b Pallas, Voyage, VII. p. 28.

^c Mordvas or Morduates.

^d "Red and yellow hair is more common among the *Erzani*."

^e They are called *Mordens* and *Mordensimimis*, but the termination *simmis* is a Slavonic word for country.

^f Schamanism is the religion of the *schamans* or the Tartar priests and magicians.—Tr.

^g Pallas, Voyage, I. p. 91—123.

^h Lepekhin's Journal, I. p. 100. German translation.

ⁱ "Lepekhin relates that he has seen them offer sacrifices of sheep and fowls to the sun and new moon."

^k The language of all the Tartar and Turkish nations is nearly the same, only slightly modified by different degrees of civilization, and by mixture with neighbouring languages; still Klapproth found the language of the Tartars in the steppes of Siberia so nearly like the Turkish of Constantinople, as to make himself easily intelligible in that language.—P.

^l The ruling people in Bucharia are Turks or Tartars, but the great mass of the population, particularly the inhabitants of towns and the labouring people, are of Persian origin. They are called *Tadjiks*.—P.

^m Wiatka, Viatka or Vyatka. The government is called *Viatskoe* by the Russians.

ble than the brick walls, called *Tschartova-Gorodeschte* or the Devil's town, in the district of Ielabuga.

The Wotiaks are a Finnic tribe, and one which is not much mixed with foreigners. The greatest part of them inhabit the government of Wiatka. They are a weak and ugly race of men; most of them have red or yellow hair, and little or no beard. We might be apt from their physiognomy to consider them a branch of the Votes, who formerly inhabited the country farther west, and were subject to the republic of Novgorod. Some Tche-remisse, Wogul, and even Gothic^a words have been introduced into their dialect, but in other respects it closely resembles the Permian. The people call themselves *Oudi* or *Oud-Murt*, and the Tartars distinguish them by the name of *Ari*.^b Their territory commences near the Tanyp, a feeder of the Bielaia, in the government of Orenburg, and the opposite frontiers are not far from Sarapul. It includes *Kam-Kossip*, or the country between the lower Kama and the Wiatka, and extends along the banks of the last river to the neighbourhood of Orlow, and as far as the sources of the Kama in the vicinity of Kai. The town of *Arsk* in the government of Kasan was once inhabited by princes of the same nation, which was also divided into nobles and people; and at present these distinctions are obsolete. The peaceable Wotiaks earn a subsistence by tilling the ground and by rearing bees; their industrious wives prepare coarse cloth, felt, hides and whatever is necessary for the dress of their families. Some of the men work as wrights or turners, and make use of a particular varnish, which not only imparts a bright lustre, but hardens and improves the quality of the wood. Few have more than two wives, and as every girl is sold, he who cannot afford to buy his bride, tries to carry her off. If the fair one consents or yields to the wishes of her lover, she may be purchased at a very cheap rate; but if she refuses, and if the adventurous youth is caught by her parents, he receives many stripes, and the commercial value of the maiden is nowise impaired.

The names of their divinities are different from those of the other Finnic nations. The supreme being is called *In-Mar* or the Man in the Heavens;^c his mother is *Mouma-Kaltsina* or the universal principle of fecundity, and his wife is *Chounda-Mouma* or the mother of the sun, who is also the parent of the stars and the inferior gods. Their festivals, sacrifices, priests or *touna*, and holy places or *keremet*, differ little from those of the Wolgaic Finns; but other parts of their superstition are more connected with the creed of the Calmucks and the other followers of the Lama. While the Tchuwashes change the wicked after death into so many skeletons that roam in a frozen desert, the Wotiaks place them in caldrons of boiling pitch.^d The same barbarians keep their feasts every year on the tombs of their forefathers, and the stomach, blood and entrails of the victims are reserved for the infernal gods.

The government of Perm is partly situated in Asia; the European portion includes the countries watered by the higher Kama, but the lofty plains in the government of Wiatka extend to Tcherdyn, Solikamsk and Krasno-

Ufimsk. The same line may be considered the limit of what have been called the promontories of the Uralian mountains, most of which form sloping declivities or detached hills. Calcareous rocks of secondary formation are found among beds of sandstone, clay and marl. The numerous caverns abound in stalactites, and the one near Kungur is divided into four large apartments. The sinking of the ground is frequently caused by subterranean waters, which undermine the marly soils, and the beds of many small lakes are thus formed. The first or western chain in the Ural range, consists of limestone, mixed with but few petrifications. Between this chain and the granite heights or summits of the range, are metalliferous mountains composed of hornblende rocks, argillaceous schistus, and gneiss or lamellated granite. It is from these mountains that the rich ore is extracted, which furnishes constant employment for 50,000 workmen, and a greater supply of iron than is necessary for the whole Russian empire. Copper is not so abundant, but the quantity obtained is not less than 125,000 *pouds*, and the gold washings which are situated in the Asiatic part of the government, have become much more productive of late years.^e Salt is a much more important article; it amounts annually to five or six million *pouds*. All the salt marshes lie in the vicinity of limestone and gypsum hills, in which are observed vast strata of shells, and the fossil remains of elephants.^f The number of workmen who live by exporting salt amounts to more than 15,000.

The extent of the forests is to that of the ground in cultivation as seventeen to one,^g and the climate, which is cold and humid by reason of the latitude, is rendered more so by thick shades, numerous springs and masses of eternal snow or ice collected in caverns and ravines. The rivers near Solikamsk are frozen about the end of October or beginning of November, and sledges and skates are used six months in the year. The hills with a south exposure, in the southern part of the government, are, on the contrary, exposed to the burning winds from the Caspian steppes. Vegetation varies greatly, but the birch is the most common tree in the forests in the high country, and next to it are the different kinds of pine and fir; the larch and cedar of Siberia are of less frequent occurrence. The elm, the lime, the maple and the sorb are seen in the plains and fruitful districts. Corn does not always ripen in the northern part of the province, and as the inhabitants consume, in addition to bread, a great quantity of spirits distilled from grain, the produce of the country is not sufficient for their supply.^h As we proceed southwards, we observe different fruit trees,ⁱ and the melon and the arbutus grow on the Asiatic side of the Urals.

The industry of the government is concentrated in the *sawodes* or mining villages, and in the forges and founderies. The towns, on the other hand, are principally inhabited by merchants, not by the working classes, and most of them are neither large nor populous.^k Perm, the capital, does not contain more than 6000 inhabitants, and *Kungur*, which boasts of its tanneries and soap works, is only populated by 7000. A great trade in salt is carried on in the

^a *Ar*, a year; *suser*, an elder sister; *schondi*, the sun.

^b The first of these names signifies hospitable men, the second remote. Klaproth, *Asia Polyglotta*, p. 185.

^c From *in* or *ien*, the heavens, and *mar* or *murt*, man.

^d Georgi, *Nations Russes*, p. 43, 59, (first Germ. ed.)

^e *Nouv. Ann. des Voyages*, Novembre, 1825.

^f Nikita Popow, *Mémoire sur les Productions Naturelles de Perm*, (*Description Economique*, &c. de M. de Moderach.)

^g "The extent of the forests is equal to 17,000,000 *desiatines*, and that of the cultivated land to but little more than one million."

^h "200,000 *wiedro* of spirits are imported."

ⁱ "Apples and cherries."

^k Herrmann, *Mémoires de Statistique*, III. p. 55.

ancient town of *Solikavsk*, but its population does not exceed 5,000 souls. The large burgh or *Slobode* of *Nischnei-Neviansk*^a is inhabited by more than 12,000 *Roskolniks*,^b or followers of the ancient Greek church, and is a place of some importance from its trade and manufactures,^c but it ought to have been mentioned in our description of Asia, for, according to the limits to which we adhere, it is situated in that continent.

The Permians and Sirianes are two tribes of the same people; their customs, manners and dialect are not different. The former reside farther to the east, on the banks of the Kama and in the Uralian mountains; the latter inhabit the countries towards the north, and extend as far as the Withegda and the Mezen in the governments of Wologda and Archangel. Both call themselves *Komi-Murt* or the people of the country.^d The Permians sometimes distinguish themselves by the name of *Suda*, but at present there is little difference between them and the Russians, and the greater number speak the language of that people. Their mythology and history are little known; the one and the other have been imperfectly handed down by oral tradition. It has been proved by some documents and records, exclusively of the numerous ruins, that Permian or Biarmian was once a kingdom, which comprehended perhaps all the countries on the White Sea, the Urals and the Obi. It is uncertain whether that Finnic monarchy or *Tchudskoi-Tzarstwo*, as it is termed by Russian antiquaries, existed in the time of Augustus, and ended in the fourth and fifth centuries after the invasions of the Huns, or whether the monuments of ancient splendour and industry are merely the remains of the Biarmian kingdom, which was known to the Scandinavians during the middle ages, visited by the Persians and Arabians, and finally subdued by the Russians in 1472. The last supposition is, in our opinion, very probable, but we do not mean to deny the anterior existence of a Finnic, more particularly of a Hungarian or Magyar kingdom, which might have been destroyed by the migration of its most powerful tribes to central Russia and the banks of

the Danube. The true history of the country begins in the time of St. Stephen, the apostle of the Permians, who invented a Permian alphabet in 1375. The inventor wrote several books in the new characters, converted a great number of heathens, and established the first episcopal see in Permian, in the convent of *Oust-Wymsk*. It is melancholy to add that this missionary was aided in the work of conversion by the arms of barbarians, and the torch of incendiaries. His labours were facilitated by a Russian army, and the frightened heathens with their children and idols fled for safety to the rocks of the Wogula and the frozen marshes of the Samoiedes. St. Stephen died in 1396, and a short time afterwards his life was written by the monk Epiphanes, a work of which a small part only is now extant. The writings of the Saint were lost by the negligence of the priests, and his alphabet, which probably resembled the one invented by Cyril, has entirely disappeared.^e M. de Moderach discovered some ancient records in the archives of Tcherdyn, and the names of fourteen princes and princesses who ruled over *Great Permian* are mentioned in those documents. All of them were Christians, and when the male dynasty became extinct, the succession passed to females. Tcherdyn, says M. de Moderach, is built on the site of Great Perm, but, according to other authors, it was situated on the north-west of that town, at the confluence of the Withegda and the Wym.

Some monuments of an ancient religion, once common to all the Uralian Finns, still remain perhaps in the forests of Permian. Different *keremets* or consecrated enclosures have been lately examined; metallic idols have been found, but destroyed. Herberstein mentions a gold statue, which was probably an object of Permian superstition; it represented an old woman with a child in her arms, the whole was surrounded with tubes and spiracles, and the wind in passing through them produced harmonious sounds.^f The spot on which the temple of *Solataia Baba* stood, is now unknown, but it is supposed to have been erected to the north-east of Tcherdyn, on a feeder of the Sosva.

^a The adjective *Nischnei*, which is prefixed to the names of several Russian towns, signifies lower.—Tr.

^b Seceders. See note, p. 384.

^c "It has flourishing manufactures of varnished or japanned tin."

VOL. II.—NOS. 99 & 100.

3 R

^d "People of the nation, or people on the banks of the Kama, which is called Kouma in their dialect."

^e Klaproth, *Asia Polyglotta*, p. 188.

^f Adelung's *Life of Herberstein*, p. 385.

BOOK CVI.

EUROPE.

*European Russia. Third Section. Northern Russia.
Countries on the White Sea.*

THE country from the Ural mountains to the shore of the White Sea is cold and unfruitful; the climate is of such a nature that the industry of man can hardly contend against the elements, and the scanty produce of his labour enables him merely to lengthen out a painful and sometimes precarious existence. The vivifying principle of heat is diminished, corn withers, and the marshy meadows are covered with rushes and mosses. Trees disappear on the sterile plains, the plants are stunted, and the whole of vegetable nature proclaims the vicinity of the pole. The cold soil is not fructified by the solar rays in the long days of summer; but in this almost uninhabitable region man has established his ministerial arrangements and political divisions. The governments of *Wologda*, *Archangel* and *Olonetz*, make up the countries which we are about to describe; still we shall be guided rather by the limits that seas and rivers afford us, than by such as are of a conventional character. The provinces on the east and the south of the White Sea form what has been already termed the *maritime Uralian region*; those on the west may for the most part be included in the *Lapponic region*. The topographical details that are contained in the statistical accounts of Russia, may be naturally arranged under these two physical sections.^a

The country on the east is an immense plain which descends from the sources of the *Petschora*, the *Mezen*, the *Witcheгда*, the *Dwina* and the *Onega* to the shores of the White Sea. The low hills by which the course of the rivers is determined, are the only objects that vary the prospect. The sources of the *Petschora* and *Witcheгда* are not more than 1200 feet above the level of the sea, those of the *Mezen* are about 600, and those of the *Onega* 300. Some hills are situated in the southern part of the countries watered by these rivers; but few rocks are scattered in the northern districts, which consist of plains and marshes. This extensive region is bounded on the east by the *Kammenoi-Poyas*, a chain connected with the Ural range, and probably a continuation of the primitive calcareous heights, which maintain their elevation, while the other collateral chains disappear. Its greatest elevation does not exceed 3600 feet, and its utmost breadth is supposed to be equal to ten versts. It descends and disappears near the sources of the *Ousa*.

The *Petschora*, the *Mezen* and the *Dwina* are the three great rivers in the country on the east of the White Sea. The first, though of no great celebrity, is not inferior to the

Loire in the length of its course, but it flows through the most solitary deserts in the Russian empire. A hunter is rarely seen in the woods, a *Samoiede* seldom brings his rein-deer to pasture on its banks. The *Kammenoi-Poyas* extends for a certain distance in a direction parallel to the course of the river on the east, and its steep calcareous banks are broken by caverns and ravines.^b It is enlarged by the *Ousa*, and passes after its junction through a very different country, where its low banks are surrounded by immense heaths. Few fish are found in its clear waters, and those in the Frozen sea are perhaps prevented from ascending its channel by two very salient promontories. The *Mezen* is nowise remarkable, and the country which it waters, contains but few objects likely to attract the attention of the physical geographer. The *Dwina*^c is formed near *Weliki-Oust-Ioug*, by the junction of the *Ioug* and the *Suchona* or the outlet of the lake *Kouban*. It is there that the *Dwina* is first known by its name, but it does not become a large river before it reaches the confluence of the *Witcheгда*, which flows from the east, in a direction opposite to the *Suchona*. It is navigable, and abounds in fish; its breadth is about 200 yards, and the ice remains on it from the beginning of November to the end of April. The *Onega* does not issue from the lake *Onega*, but from several others, which, although in its neighbourhood, are not connected with it. The *Vaga*, a western feeder of the *Dwina*, and the *Vig* and *Sig*, which fall into the White Sea, are still distinguished by their Scandinavian names.^d

The temperature varies little in different districts, for all of them are exposed to the north wind. The humid forests in the south, and a frozen sea on the north, render the winters long and severe. The heat is at intervals oppressive during the long days of summer, but so sudden is the transition produced by a northern breeze, that the workmen sometimes appear in the same hour with their light dresses and the thick furs of Siberia. The mornings in June are generally frosty, and they are equally so in the month of September. Ice may be constantly found beyond the 67th parallel at the depth of a few feet below the surface. But the greatest degree of cold has been observed in *Wologda* and *Oustioug*; it is uncertain, at all events it has not been proved by thermometrical observations, that the temperature diminishes in more northern latitudes.

The whole region may be divided into forests, heaths, and rocks, for the cultivated land and the natural meadows occupy so small an extent that they need not be taken into account. The forests in the three governments are very

^a See the tables of the physical regions in Europe.

^b *Petschora* is the Russian word for a cavern; hence the name of the river. The convent of *Petschori* is situated in the government of Pleskow.

^c *Dwina* signifies double, in the Russian language."

^d *Schiœning's* Origin of the Norwegians, p. 105. Edda, Grimnis-Mål str. 27, 28, 29.

large;^a the pine, the fir, and the larch predominate, and the ships of war at Archangel are made of the last tree. The inhabitants export planks, staves and tar. The soil is marshy and ill adapted for agriculture; still a small quantity of barley is sown, and in some years reaped. The potatoes are much below the ordinary size, and all the grain and farinaceous plants are inadequate to the consumption of a scanty population. The deficiency is supplied by lichens, the roots of the *Calla palustris*, and the ground bark of the fir. Rye succeeds sometimes near Wologda and Olonetz, but it is not unfrequently destroyed by a single night's frost. The horses are strong and the oxen are well-sized; but the sheep is not a valuable animal; the mutton in the country is hardly eatable, and the wool, which is of an inferior sort, is only used in making *wadmal*^b or a coarse cloth worn by the peasantry.

Venison, grouse, and different kinds of game are exported from Wologda; among the other commercial articles may be mentioned *rishikes* or a species of small mushroom which is considered a great delicacy by the Russians; a bottle of them is sold for two roubles. Traces of metals have been observed, but they have been nowhere found in great quantities. The salt pits at *Sol-Wytchegotskaia*, *Segora*, and more particularly in the neighbourhood of *Totma*, on the Kouda and the Lesenga, are productive. The banks of the Wym are filled with petrified shells, and the bones of elephants are occasionally found on the Petschora.

The berry-bearing shrubs are the most valuable gifts, which nature has bestowed on the wretched inhabitants of these bleak regions. The *moroschka* or Norwegian *chama-morus*^c is a powerful anti-scorbutic, and of an agreeable taste. The red and black whortleberry, wild cherries, gooseberries and different fruits of the same sort are very common. The vegetables which are cultivated are radishes, turnips, white cabbage, onions and garlic.

Archangel, in Russian *Gorod-Archangelskoi*, or the city of the convent of the archangel St. Michael, is the most commercial town in these provinces. It is situated on the banks of the Dwina, at the distance of ninety versts from the White Sea, and according to a late measurement, it is about three miles and a half in length, and less than two in breadth.^d The population consists of 15,000 souls; yet all the houses, and there are nineteen hundred, and all the churches, eleven of which are reserved for the Græco-Russians, one for the Lutherans, and one for the Calvinists, are built of wood; in short, the commercial hall^e is the only brick building in the city. The English carried on a lucrative trade with that part of Russia during the 16th century; before that time these shores were never visited by trading nations.^f The navigation of the White Sea may therefore be said to have been discovered by British traders about the year 1553. The Dutch and Hamburgers followed the example of the English; and the town of Archangel was built in 1584, near the convent of the archangel Michael. It was for a long time the only port in Russia, but its commerce was nearly destroyed when Peter the First made the city that bears his name the principal port of the empire. Before the decree of the czar was announced, Archangel was the great mart of the goods that passed into Siberia, and

from the last country into Europe.^g Several articles of exportation are still sent thither from different parts of European Russia by Wologda and Oustioug-Weliki; and the foreign vessels which arrive at Archangel receive in exchange flax seed, fish oil, wood, tar, tallow, wax, linen, bar iron, and eider down. The value of the articles exported amounts in some years to six million of roubles, and the town is also the seat of a naval station. As there are neither husbandmen nor cattle in the neighbourhood, the ordinary articles of food are brought from a distance. Cod and ling may be easily caught, and the people consume a great quantity of fish.^h Several vessels are employed every year in fishing for sea-cows near Spitzbergen and Nova Zembla, and in the herring fisheries in the White Sea; many of the fishermen winter at Spitzbergen. Bacstrom, a Dutch navigator, who visited the Russians in their winter quarters, says they were well provided with every thing. Their houses or cottages were made of wood, they lived by hunting, and killed plenty of white bears, blue foxes and reindeer. Such were their amusements during the dreary winters, and in summer they were more profitably employed in fishing and collecting eider down. No trees grow on the islands of Spitzbergen, and the fishermen might perish from cold if timber were not thrown on the coasts; but a quantity sufficient for building a house is often found on the shore. The exercise which the Russian hunters take is the best preventive against many maladies. Storch affirms that they abstain from spirituous liquors, but his assertion is contradicted by the testimony of Bacstrom. Vapour baths are resorted to as a remedy against scurvy, the coasts are covered with various plants which are salutary in the same disease, and the fishermen are generally provided with a certain quantity of *moroschka*. The warm blood of the reindeer is given to invalids, an antidote which has been borrowed from the Samoiedes.

Two other towns, Wologda and Oustioug-Weliki, may be shortly described. The first is peopled by 14,000 inhabitants, who are as industrious as any in the Russian empire; they have manufactories of silk, linen, earthen ware, glass, crystal, and mineral colours; many of the people are employed in dressing leather, and others are occupied in making paper, sealing wax, oil and candles, and in preparing tallow and turpentine. The industry of the ancient Novgorod is now transferred to Wologda. Its commerce is very important; all the productions of the province, all the manufactures which have been enumerated, are sent from it to Archangel and Siberia; whatever is exported from Petersburg to Perm, Wiatka or Siberia passes through the same place. The different articles which are conveyed to the port of Archangel from the interior, are all transported by the Wologda, the Suchona and the Dwina. It is the mart of the Siberian furs, and of the teas and nankeens of Kiachta; its merchants travel into Siberia, and have their agents in China. Oustioug-Weliki, a town of 12,000 souls, is peopled by a colony from Wologda; it is situated on the Suchona, and on the great road between Archangel and Siberia; consequently the merchandize destined for that country is brought to Oustioug from that port, as well as from Wologda and Petersburg. The inhabitants do not

^a "They contain 72 millions of *desiatines*."

^b "So called in Scandinavia."

^c A species of *Rubus* or blackberry.

^d "A league and a quarter in length, by half a league in breadth."

^e "Cour de commerce." The palace or town house is built of hewn stone, in three grand divisions.—*Ed. Encyc.—P.*

^f The author has however stated that the early Scandinavians visited those countries, not only for piracy, but for commercial purposes.—P.

^g "Its commerce is still considerable, for it is the entrepot for the merchandize that passes into Siberia, and from Siberia into Europe."

^h "The people live chiefly on fish, which is very abundant, particularly salted and dried cod, (*tresca* and *pallus*.)"

live solely by exporting goods; many of them make enamel and different kinds of jewellery, and there are soap, candle and tallow works in the town. The merchants of Wologda and Oustioug retain the simplicity of their ancient customs; brothers, nephews, and cousins reside together in the same establishment; some superintend the workmen, or sell the different goods; others travel to Petersburg, Tobolsk or Irkutsk, and are deputed with full powers from the common house. These travellers are called *gosti* or guests, and they enjoy certain privileges in the different places which they visit. Totma contains 3000 inhabitants, and carries on a trade with Siberia. The other towns are insignificant, but their topography may serve to illustrate some phenomena worthy of notice. Thus the vegetation of the lime ceases near Nikolsk, the larch is not seen beyond Jarensk, and the last hazel-nut tree flourishes in the neighbourhood of *Olischew*, about 58° 30', north latitude. A solitary and sheltered oak grows near the convent of Preluk, at no great distance from Wologda. *Oustsolsk*, a town where several fairs are held, is situated in a country where the *Pinus cembra* is almost the only forest tree; hence the climate is not widely different from that of mountains near the line of perpetual snow.^a Timber is exported from Onega in the government of Archangel. *Kholmogory*, the ancient metropolis of the country on the Dwina, appears to be the same as the *Holmgard* of the Icelanders, once the capital of a Scandinavian state; it is built on an island or *holm* on the river. *Mezen* is the chief town of a very large district, part of which is called *Udoria*. The frontiers of *Iougoria* lie on the east of the Uralian mountains, and *Lucomoria* is a general name for the maritime plain of *Obdoria*, or the country near the mouths of the Obi. Many caverns are observed in the desert regions of Petschora, and the natural entrances to most of them are cut or altered so as to admit of doors, a fact which seems to prove that they were at one time used for habitations. It is said that old caldrons and the remains of coarse household furniture, nay more, that human bones have been taken from some of them. According to the common tradition of the Samoiedes, the ancient inhabitants of their country were of gigantic size, and perished by a pestilence.^b This popular notion coincides remarkably with the description of the *Iotes* in the Eddaic poems, for that people are frequently called *Iettes* or giants, and often connected, in the same narration, with the *Rises*, *Thusses*, *Trolles* and other barbarians of lofty stature and fierce manners. *Iotun-Heim* or the country of the *Iotes* is generally marked, as Schiøning has shown, on the east and northeast of the country of the *Ases* or Scandinavia. All the *Iotes* were supposed to reside in caverns, and each man, it is affirmed, had a *large caldron*.^c Their dialect was little different from others in Scandinavia, and their religious traditions were more ancient than the worship of Odin. The name of *Thor* or *Thorom*, by which the Samoiedes designate the supreme being, is no proof against the hypothesis; for although it be allowed that the *Iotes* were the enemies of *Thor*, other branches of the Scandinavians, the conquerors and successors of that people, might have disseminated the religion of Odin's son among the vassal tribes.

The Samoiedes are *the men who eat each other*; such at least is the meaning of the Russian word, and it has the same

signification in Polish. It is, indeed, a matter of wonder that such a name has been applied to an innocent race of men, who live on the flesh of their rein deer, and who at most deserve the epithet of *Syroiedzi* or eaters of raw food, a term by which they are occasionally styled in official documents. As it is vain to suppose the meaning of the word different, we must conclude that they were called Samoiedes or *anthropophagi* by the inhabitants of more southern countries, from prejudices against certain tribes by no means uncommon. The *Melanchlæni*, the *Cimmerians*, and the *Iotes* themselves may be cited by way of example; the two former were believed by the Greeks, and the latter by the Odinian Scandinavians, to have been inhospitable, fierce and even addicted to cannibalism. These erroneous notions concerning the more ancient tribes may have passed to their successors, and the harmless Samoiedes may have thus been classed among cannibals. It is now generally admitted that the Samoiedes form a distinct race, which is divided into several tribes, and scattered from the sources of the Jenisei to the Frozen ocean, and along the shores of that sea from the Anabara on the east, to the Mezen on the west.^d The most southern tribe is that of the *Ouromkhai* or *Soyotes*, who are subject to the Chinese, and inhabit the Saganian mountains. They are evidently the same as the *Oranghey* of Rubruquis, whom he commends for their dexterity in skating and pursuing their game on the ice. The series of Samoiede tribes is interrupted near the middle part of the Jenisei. Those who inhabit Europe, call themselves *Ninetz* and *Chasowo*, two words, which signify men. They are divided into several tribes, of which the *Wanoita* on the Petschora, the *Ousa*, the *Korotaicha* and the *Kara*, are the most numerous. The country on the east of the Petschora is called by the same people, the *Arka-Ia* or Great Land. Much uncertainty prevails concerning the number and subdivisions of the European Samoiedes.

The principal wealth of the inhabitants consists in the number of their rein deer; some of them possess at least a thousand, and few have less than ten. The price of a good rein deer varies from five to ten roubles, but some are not worth more than two roubles. The hunters kill the animals that are found in the forests and on the mountains, such as bears, wolves, foxes, squirrels, ermines and martens, or those which inhabit the plains or marshes, such as the hare, the *isatis* or blue fox, and the wild rein deer. The different birds are wild geese, ducks, swans, the *Larus parasiticus* and the *Hamatopus ostralegus* or oyster catcher. The fisheries are confined to the rivers, at least those on the sea afford a scanty supply. The most valuable fish are the *Salmo migratorius*, the *Salmo neleuco*, the *Cyprinus rutilus* and several kinds of shad and perch. The frost continues to the middle of May, and the rivers are open only two or three months in the year. The Petschora is covered with ice by the beginning of October, and the Ousa by the beginning of September, still its banks are covered with firs, birch trees, alders, willows, sorbs and brushwood. The barberry, the *moroschka* or *chamæmorus* and the red whortleberry grow near Pustosersk. It follows from the above statement, which is attested by the natives themselves, that their polar country is susceptible of great improvement.^e

The European Samoiedes are for the most part about the

^a Mémoires Statistiques sur Wologda, Nouvelles Ephémérides Geogr. XII. p. 15. See also Storch, Materialien, I. p. 305.

^b Klaproth, Asia Polyglotta.

^c "Each of the Iotes was supposed to reside in a cavern hung with large caldrons."

^d Klaproth, Asia Polyglotta.

^e Interrogatoire des Samoyèdes, Mémoires Mensuels de l'Académie de Pétersbourg, Janvier, Février, Mars, 1787.

middle size; few of them are very tall or of *gigantic stature*.^a They may be distinguished by their flat visage, small eyes, and sunk nose; the last feature is nearly on a level with the upper jaw. To complete the picture, we may add a long mouth, thin lips, large ears, and coarse, shining black hair, which falls in plaits over the shoulders. They have no beards, and are for the most part of a swarthy complexion. The women are marriageable at ten years of age, and cease to bear children after thirty. Polygamy is permitted, but few men have more than two wives; all the girls are purchased, and sometimes a hundred or a hundred and fifty rein deer are given for a bride. The fair sex do not enjoy much freedom, and though strictly watched by their husbands, they give them little cause of jealousy. The Samoiedes are a very dirty people; a man rarely washes himself unless threatened with diseases arising from excessive filth. Scurvy, we have learnt with surprise, is not a common complaint, and many, it is said, are carried off by inflammatory fevers. A Samoiede cannot resist the temptation of ardent spirits, and death is often the consequence of intoxication.^b The warm blood of the rein deer is considered an agreeable and wholesome beverage; the flesh of the same animal, and fish, both of which are eaten raw, are their principal articles of food. Hunting or fishing is the sole occupation of the people, and from their great practice, they are swift runners and dexterous bowmen. It is owing to the same cause that these savages can see and hear much better than more civilized men; a good eye and a quick ear are indispensable to the hunter, who subsists on game.

The tents of the Samoiedes are of a pyramidal form; they are made of the branches and bark of trees, and covered with reindeer skins. The women can take down, or erect a tent in a few hours.^c Every part of domestic economy, all the labours of the household, and other burdens, are imposed on the weaker sex; their religion too subjects them to grievous and extraordinary purifications.

The Samoiedes believe in two beings that regulate the affairs of men; the good divinity is not adored, for he is ready to diffuse his blessings without hearing the prayers of his creatures; the wicked is never worshipped, because he cannot be made to relent by the lamentations of the wretched; the immortality of the soul is a sort of metempsychosis. Although their creed is so simple, the priests possess considerable authority; the *kedesnicki* or *sadibeis* hold communion with the evil spirit, and are consulted whenever the calamities of an individual remind him of a malevolent power. The same people have no laws, custom supercedes in some measure their necessity; thus a man rarely marries more than one individual of the same family.^d The tribute of furs exacted by the Russians is readily paid, and it is the only acknowledgement of submission claimed by the czar.

The government of Olonetz extends on the south to the latitude of Petersburg, and on the north to the White Sea; thus it separates from the main part of the government of Archangel the circle of Kola or Lapland. The *Olonetz hills* are formed by granitic rocks from 300 to 500 feet in height; they are the prominent parts of a granitic table-land, which occupies apparently all the space between the White Sea and the gulfs of the Baltic. The number of lakes in the

government is supposed to be 1998, and the rocks over which their waters are precipitated into the lakes Onega and Ladoga, or the White Sea, are all composed of granite. The same substance is covered with masses of trap,^e serpentine and schistus. The gold veins of *Woitz*, which were first observed by a peasant, extend in a bed of gneiss that forms one of the superincumbent strata; the works are now abandoned, although the gold was of a very bright colour, and contained comparatively little alloy. Specimens of copper ore have been collected in many parts of the country, but it exists nowhere in sufficient abundance to indemnify the labour of working it. Iron is more productive, and the quantity obtained annually from the government exceeds 200,000 *pounds*. Mineralogists have examined on an island in the lake of *Puch*, a stratum of schistose trap, which is impregnated with vitriol, and, from its decomposed state, not unlike chalk. Marble is exported to Petersburg from the quarries of *Olonetz*. The oak and the beech succeed rarely, but the fir and the larch grow to the height of a hundred feet in the circle of *Kargapol*.

Petrosavodsk, the metropolis of the government, contains 3000 inhabitants, many of whom labour in the iron works and imperial founderies.^f *Kargapol*, another small town, possesses a flourishing trade, and *Olonetz* is not unworthy of notice, for it was there that Peter the Great first attempted to build a ship of war. The circle of *Povenetz* is noted for its good hemp, and many of its inhabitants are *Roskolnicki* or Russians of the ancient Greek church. The monks in their different convents appear with long beards, and that appendage of which they boast, is said to be essential to their faith. Several large rivers flow in the department of eastern Kemi towards the western coast of the White Sea; their water is coloured by the *sphagnum palustre* and other marsh plants, and dashed in golden foam from the summits of steep granite rocks. The Laplander and his rein deer are seen in many extensive tracts, on which the trees are never lofty, and the crops always uncertain. Although under the same parallel as Ostrobothnia, the climate is as severe as in central Lapland. The population of the government of *Olonetz* consists chiefly of Carelian Finns; their language is mixed with the Russian, and a barbarous and irregular dialect is thus produced.^g

A town and a convent have been built on the island of *Solowetskoi*, which is situated in the White Sea, and belongs to the government of Archangel. The convent was visited by many pilgrims, and the town sustained a siege during four years against a body of *Strelitzes*.^h Large tablets of Muscovy talc are sent from the island to different parts of the empire.

The circle of Kola, in the government of Archangel, and the northern part of eastern Kemi made up at one time Russian Lapland; but by later treaties, two extensive districts formerly belonging to Sweden, all the *Lapmark* of western Kemi, and the greater part of the *Lapmark* of Torneo, have been ceded to Russia. Thus nearly two-thirds of the regions peopled by the Laplanders are within the dominions of the emperor. We shall therefore give in this part of our work some account of that singular people and the country they inhabit. Lapland is not intersected by Alps or very high mountains, as has been recently affirmed

^a "Some of them, however, are six feet."

^b "Many of them die by spontaneous combustion, caused by the excessive use of spirits."

^c "In less than half an hour."

^d "They do not contract marriage with individuals of the same family."

^e "Perhaps trachyte?"

^f "A cannon foundry."

^g *Campehansen's Statistical and Geographical Essai*, 1792. Journey round the lakes Ladoga and Onega, in *Storch's Materialien*, I. p. 211.

^h *Streltzi*, Russian.

by a German geographer.^a The whole region from Nordland^b onwards, is a table land crowned only on its western frontier with a mountainous chain that forms the extremity of the Scandinavian Alps, and descends from Sulitjelma, of which the elevation is 6000 feet, to the heights of Norwegian Finmark, that are about 3600 on the continental coast, and nearly 4000 on some islands. The interior is intersected by ravines and vallies; the elevation of the highest plains may be about fifteen or sixteen hundred feet, but they uniformly descend towards the east and the south. The rocks and hills that rise from the table land are not lofty; they vary to the east of 18° longitude, from five to six hundred feet above their base, or from 2000 to 2400 above the level of the sea. These hills do not form a continuous chain, but a number of isolated groups or ridges, and at twenty leagues to the south of them, near the base of mount *Salvasvado*, at the level of 1300 feet, the streams and rivers separate in different directions towards the north sea and the Bothnian gulf, or the gulfs of Alten and Torneo.^c We conclude from the information afforded us by travellers, that this central table-land descends without interruption to the White Sea, and instead of a continuous chain, that part of the country consists of extensive marshes and sandy plains studded with rocks varying from 300 to 400 feet in height. The rocks in the higher part of the table-land are composed of granite and gneiss; such at least were those examined by Von Buch on the banks of the Muonio. Silver is found on the *Three islands*, and on the *Bear's island*, near the eastern extremity of Russian Lapland, but their component parts are in other respects the same. Von Buch observed during his excursion towards the gulf of Bothnia, a succession of calcareous and schistous rocks. The same substances abound in the country between the last gulf and that of Kandala, in the White Sea; and although the land is furrowed with ravines, its elevation is inconsiderable. The whole region rests probably on a base of red *decomposable* granite, or as it is generally called by the natives,^d *rapakivi*.^e

Metals are found in abundance throughout the greater part of western Lapland, and there are whole mountains of rich iron ore in the provinces still attached to Sweden. Traces of copper and silver have been discovered, but these indications disappear gradually as we approach the White Sea. The marshy lands are impregnated with iron,^f but the want of hands, the scarcity of fuel, and the great difficulty of transportation, are insurmountable obstacles against working mines in the inland and eastern parts of the country. The natives rejoice that these treasures are suffered to remain in the earth, for their rulers might otherwise compel them to labour; at all events, it is certain that the Laplander, who might discover rich mines and metallic veins to the Russians, would be considered a traitor by his countrymen. Rock crystal is a very common mineral, and the inhabitants sell it sometimes for amethysts and topazes.^g

The *Alten* or *Alata*, which traverses by a series of water-

^a Rûhs, Sweden, p. 124.

^b "Norwegian Nordland or Halogaland."

^c Section from Altinggaard to Torneo, in Baron Von Buch's Travels through Norway and Lapland.

^d The Finns.

^e Wahlenberg, Topographie de la Laponie de Kemi. De Buch, Voyage, II. p. 238—277. We have collected the different words by which the Laplanders denote mountains, rivers and lakes. *Wara*, a mountain or height in general. (*Var*, a castle or tower, in Hungarian.) *Tuoddar*, a mountainous chain covered with snow. (*Tuil*, snow, in Wogul.) *Kaisse*, an isolated summit. *Iagna* or *Iegna*, a glacier. *Tiarro*, a mountain which is now, or was formerly covered with wood. *Meta*, a flat hill. *Korr*, a peak. *Pakte*, a rock. *Pello*, a plain. *Trask*, a lake filled with *sphagnum* and other plants.

falls the mountains in Finmark, is included in Norway, and the *Torneo* and *Muonio* mark the limits of Sweden. The Bothnian Kemi flows in the Russian provinces, and of all its imposing and terrific cataracts, the *Taival-Koski*, or *the fall of heaven*, is the only one which the adventurous boatmen never attempt to pass. The *Tana*, which abounds in excellent salmon, forms to a certain extent the boundary between Norway and Russia, and surrounds on the east the maritime chain of Finmark. Small islands and rocks are scattered over the great lake *Enara*, which has its outlet by the *Passe* or *holy river*. The *Tuloma* falls from a great height, before it passes the Russian town of Kola; but the course of the *Ponoï*, which waters all the eastern declivities in the same circle, is not accurately known. The large lake of *Imandra* is discharged into the gulf of Kandala, and its level is 400 feet above the sea.

The foaming cataract, the lofty precipice, islands covered with pines, and rugged rocks of a thousand varied forms, seldom attract travellers to this bleak and desert country. The stranger is rarely exposed to the rays of a midnight sun, and as rarely reposes on the white elastic moss which grows along the banks of solitary rivers near the silent shades of rocks, and forests. The rich Laplander does not often visit the plains, his reindeer quench their thirst at the springs and mountain streams; but the poor man repairs to the rivers, casts his nets across them during the day, and at night, (when there are nights in Lapland) he kindles his pine torch, and spears the fish that are attracted by the light to the surface of the water. Waterfalls, lakes, rivers and rocks, are held sacred by the superstitious natives; and the operations of nature are supposed to be very mysterious in a country where her empire is not disputed by the art of man. We shall afterwards return to the same subject, but it may be remarked at present that the industrious and hardy Finns or *Quanes*,^h a flourishing colony, and far more numerous than the Laplanders, try to open communications between different provinces, their boats descend many of the torrents, and trees cut in the remotest forests are borne down precipitous rocks. The simple but clean cottages of the laborious Swedes are situated near the foot of the cataracts, or on the lowest declivities of the high country; but the crops which these settlers have introduced, are often destroyed by the inclemency of the seasons. The traveller, who leaves the wandering tribes of hunters and fishers, is suddenly surprised by the appearance of civilization. Smoke rises from the forges, the anvil resounds to the stroke of the hammer, the grating noise of saw-mills assails the ear, and the novel sight of bells and steeples announces the worship of Christians. Such is the appearance of Torneo, at present a Russian town. But on the side of the White Sea, almost the whole country is one continued desert; some Russian hamlets, with their cabbage gardens, and a few fur storehouses near the mouths of solitary rivers, are the only marks of human industry.

Lapland was the coldest country visited in past times by

Jerfvi, a lake. *Jaure*, a pond. *Faule*, a lake through which a river passes. *Joki* or *Iok*, a river. (*Joug*, *Joggi*, in the other Finnish dialects.)

* "Cau-case," Caucasus. It is doubtful whether there is any affinity between the Lapponic *Kaisse*, and the latter part of Caucasus. Wilford derives Caucasus from *cau* or *coh*, the Persian word for mountain, and the *Chasas*, an ancient tribe who inhabited the immense tract from the eastern limits of India to the confines of Persia, and probably as far as the Euxine. Isidorus says that Caucasus in the eastern languages signifies white, and that a mountain near it is called *Casis* by the Scythians, in whose language it signifies snow and whiteness.—P.

^f "Fer limoneux," Bog iron.

^g Hæmelin, Essai d'une histoire minérale de la Laponie. ^h Quans.

the travellers in western Europe, and its climate has thus obtained an unfortunate celebrity; still it is milder than that of any other region in the same parallel. Let it be compared for instance with the country of the Samoiedes, or the coasts of Siberia, which, though two or three degrees to the south, are never open until the end of July, while the coasts of Norwegian Lapland or Finmark are freed from ice in the month of May. An open and ever-agitated sea is one great cause of the comparatively mild temperature on the northern coast of Norwegian Lapland, but the dense and humid fogs must be attributed to the same cause, and it is only near the interior of gulfs sheltered from maritime winds, and in districts at the elevation of seven or eight hundred feet, that the culture of grain succeeds, and that all the force of the heat accumulated in a day which lasts two months, is concentrated.^a The maritime climate is much colder on the other side of Cape North, and the harbours on the coast of eastern Lapland are sometimes blocked with ice in the middle of June.

The central table-land is more habitable than any other polar region in the same latitudes; its climate too has been better observed. Rye and barley are sown, ripened and reaped within the space of sixty-six days, but during the whole of that time there is no night. The short summer is enlivened by the songs of birds, the earth is in some places covered with flowers, but the coolness of evening is never felt, and the light is never succeeded by darkness. The summer may be contrasted with a rigorous winter, that continues eight months in the year; the cold is excessive, and mercury freezes frequently in the open air. The chilling blast penetrates the wretched huts of the Laplanders, but the provident *Quanes* are sheltered in their *pærrtes* or *stovecottages*. The settlers admit that a terrestrial paradise is not to be found in Lapland, but the cold is perhaps more intense at Archangel than at Enontekis, and strangers suffer less inconvenience from the temperature of the central table-land, than from boisterous winds, and the chaotic confusion occasioned by the thawing of the wide rivers which intersect the plains.

The vegetation of Norwegian and Swedish Lapland has been carefully examined by Wahlenberg and Von Buch, and it is to be regretted that similar observations have never been made in the ancient Russian provinces. But as a great part of the Swedish territory has been added to the Russian, it may be as well to mention some of the facts stated by these able botanists. Wahlenberg distinguishes the following zones.^b First, the *lower region of the forests*, in which the fir, the *trifolium pratense*, the *convallaria majalis*, and the *nymphaea alba* flourish; it rises from the level of the sea to the height of 500 feet. Second, the *higher region of the forests*, or that of firs, from 500 to 800 feet; the fir still succeeds, but the other plants disappear. Third, the *region of pines*, from 800 to 1200 feet, where the fir is rarely if ever seen. Fourth, the *subalpine region*, or that of the birch, from 1200 to 1800 feet; the coniferous trees do not grow, they give place to the birch. Fifth, the *alpine region*, or that of the dwarf birch, from 1800 to 2500 feet. Sixth, the *higher*

alpine region, or that of perpetual snow, from 2500 to 3300 feet. These divisions are only applicable to the southern declivities of Lapland. Von Buch has marked the vegetable scale in Norwegian Lapland or Finmark, the most northern country in Europe. The following table is intended for 70° north latitude. Limit of the red pines, 730 feet; of the birch, 1483; of the *Vaccinium myrtillus*, 1908; of the dwarf birch, 2576; of the *Salix myrsinites*, 2908; of the *Salix lanata*, 3100; and of perpetual snow, 3300. Plants are not so profusely scattered in the country on the east of the Tana and the Kemi; but as the level is lower, there is probably no limit to the growth of the pine, much less to that of the birch. It is stated by Wahlenberg, that not only the birch, but the pine and the fir flourish throughout the marshy plains near *Iwala-Iocki* in the parish of *Enara*, where the waters diverge towards the Frozen ocean and the Bothnian sea. Thus the zones of all these trees are confounded, and pass from one sea to the other.^c

Most plants observed in the temperate regions of Europe are not common to the high latitudes of Lapland, and the number of species which make up the *Flora Lapponica* is inconsiderable. We do not maintain that the few plants supposed to belong exclusively to Lapland, in other words that the *Rubus arcticus*, the *Salix lapponica*, the *Ranunculus lapp. et hyperboreus*, the *Diapensia lapp.*, the *Andromeda carulea*, the *Pedicularis lapp.*, the *Orchis hyperborea* and others, may not be found at a future period in different parts of the globe. Although the species are few in number, they abound in individuals, and the vegetation of Lapland is far superior to that of the other countries round the Frozen Ocean. The plains and rocks higher than 1000 feet, are covered with mosses and lichens. The reindeer's lichen is of a bright yellow colour, but as it dries or withers, it becomes as white as snow; indeed the illusion could hardly be discovered, were it not for the verdant bushes and tufted trees which interrupt the uniformity. The same plant thrives better near the forests of fir than in the neighbourhood of the birch, and the Laplanders themselves are well aware that their lands might be more productive if their birch woods were destroyed.^d A rocky plain covered with the reindeer's moss forms a Laplandic meadow. The cattle are fed on this winter fodder, and the inhabitants extract from the lichen a sort of flour, which, if its taste be not very agreeable, is at least nutritive and wholesome.^e The Laplanders learnt from the instinctive sagacity of the bear, the use of the *muscus polytrichum* or bear's moss.^f Wherever it grows, every other kind of vegetation decays, but it furnishes a very soft and durable material, and is applied to different purposes. Thus the moss and the coherent tissue of its roots are dug from the ground, the particles of earth are disengaged, and it is made into beds and mattresses, which many travellers prefer to any in the civilized countries of Europe. Plants useful in dying are common in the same country, and if the people were more industrious, bright colours might be extracted from the different lichens which are found in Lapland.^g The rocky country is the region of the *cryptogamie*; in the meadows the *carex* is the prevailing

^a Other circumstances are enumerated in the article Norway.

^b *Flora Lapponica*, p. 30-35.

^c Wahlenberg's *Topography of Kemi Lapmark*.

^d "It thrives better in the neighbourhood of the fir than in that of the birch; or we might rather say, it is more fatal to the growth of the latter tree, than of the former."

^e The Iceland moss (*Lichen islandicus*) furnishes a jelly by decoction which has been much in vogue as a diet in pulmonic affections, and the

tripe de roche, a species of lichen in polar North America, is used as an article of food by the hunters and Indians, but the exclusive use of it by Capt. Franklin's party, when destitute of provisions, was not found favourable either to health or strength; indeed it was followed by very disagreeable consequences.—P.

^f *Polytrichum commune*, L.

^g "Different colouring substances, particularly yellow and brown, might be extracted from several lichens, which are very abundant in Lapland."

plant, the sharp leaves of which are collected and dried in summer, and the cloaks or pelisses of the Laplanders are lined with them. The *Rubus chamæmorus* and the *Vaccinium myrtillus* grow in the extensive marshes, but few reeds or aquatic plants rise from the gelid waters of the lakes and rivers. The best pastures in Lapland are covered with Alpine herbage. The root of the *angelica*, and the stem of the *sonchus* are used as food, and of all the grains, barley is the one which thrives best, but the potato yields a surer harvest, and if its culture were general it might afford sufficient sustenance for all the inhabitants. If the cultivation of the cabbage and turnip has been attended with success, it must be attributed to the persevering industry of the Russian and Finnic peasants in Kola and Ponoï. But in this region the berry-bearing shrubs are the pride of the vegetable kingdom. The berries of the *Rubus arcticus*, although of a delicate flavour, are perhaps surpassed by those of the *Rubus chamæmorus*, which cover an extent of about 2400 square miles,^a and are doubly valuable from their anti-scorbutic virtue. The *Vaccinium oxycoccus* and similar species arrive at perfection in a country from which most fruits appear to be banished.

None of the quadrupeds in Lapland are so useful to man as the rein-deer, indeed were it not for that animal, the life of the polar tribes must have been most wretched. It is the stag, the horse and the cow of these countries; its milk is of so rich a quality that it must be diluted with water, its flesh is far superior to that of the sheep, it is so hardy as to be almost insensible to cold, and it is so easily maintained that it finds its food among the snowy wastes of the north. But the possession of this valuable animal is very uncertain; the wandering herds are sometimes dispersed in the woods, they disregard the voice of the shepherd, and his dogs cannot always collect them. They are not easily milked, and yield a very small quantity at a time. Thus to have abundance of milk and meat, the Laplander must have a numerous flock and extensive pastures, for the reindeer does not thrive in confinement, it loves to roam at large; it seeks in one season the coolness of the mountain air, and in another a place of shelter against the glacial winds. To speak strictly, the reindeer belongs only to the central districts of Lapland; it does not thrive in summer on the coast of the Bothnian gulf, or in winter in the hazy islands of Finmark. The horse is terrified for the reindeer, and runs away at its approach; the cow evinces still greater horror, and it cannot be driven into any place, where its recent footmarks are impressed.^b If it be recollected that a crackling noise from the bones of the leg announces at a distance the coming of the reindeer, an effect that can hardly be imputed to any other cause than a powerful electricity which is sometimes detected in the hair, it may be natural to suppose that the aversion of other quadrupeds towards an animal graceful in its motions and symmetrical in its proportions proceeds only from an instinctive knowledge of its electrical qualities. The same fact may perhaps enable us to account for the many diseases to which the reindeer is subject, and from which other quadrupeds are exempt; certain it is that in a few days the patriarchal wealth of the richest and most fortunate Laplander is sometimes destroyed. Then the shepherd king descends from his mountains to the banks of rivers, depends for a precarious subsistence on the produce of his nets, and drags out a wretched existence among tribes

of fishers, whom he formerly despised. The greatest danger to which the shepherds are exposed, are general and sudden thaws followed by as sudden frosts. The snow is thus covered with a crust of ice, which the reindeer cannot penetrate, and consequently cannot open a passage to the lichens necessary for its existence. Famine then rages, and if it were not of short duration, all the animals might perish. The reindeer is harnessed to a sledge, which it draws during seven or eight hours with extraordinary rapidity, but at the end of that time, it falls down from exhaustion. The Laplander calls these animals by as many names as the Arab gives his horse; the male is generally termed *potso* and the female *vaiea*.

The Finnish, Swedish, Norwegian and Russian peasants have introduced horses, oxen and sheep into Lapland; the last have succeeded. The oxen lose their horns and the cows become white. Few elks frequent the forests, and the beaver is seldom seen on the rivers; but the bear, the glutton, the wolf and other carnivorous animals pursue the squirrels, martens and hares, and the curious lemming rats, which, it is said, always advance in straight lines from north to south, and are not diverted from their course by lakes or rivers, but try to cross them, although thousands are drowned in the attempt. If this opinion admitted by naturalists be correct, the followers of Pythagoras may conclude that the souls of metaphysicians and geometers inhabit the bodies of these animals.

The forests, shrubs and brushwood in the solitary regions of Lapland afford shelter to birds of passage, which arrive in flocks every summer. The shores of some islands are almost covered with the eggs of aquatic fowl, and the interior abounds in different species of game, the grouse, the white partridge and the snow hen.^c The *Motacilla suecica* is the nightingale of Lapland, and it is called from its melodious notes, the *satakielinen* or "the bird of a hundred tongues." This songstress of the desert feeds on the insects of Lapland, its neck is adorned with an azure plumage,^d and it never lives any length of time in more temperate regions. The rivers are stored with salmon and a variety of fish, but about a month in the year, from the fourteenth of July to the fourteenth of August, insects as numerous as in the countries in the torrid zone torment the traveller and the reindeer; a day is the common period of their existence, and the soil is enriched by innumerable heaps of their dead bodies.

The productions of Lapland have been minutely observed by such men as Linnæus, Von Buch and Wahlenberg; we have been induced to mention them more fully on that account, and because the physical geography of the same region is connected with that of all the countries on the east of the White Sea, which have hitherto been visited only by Russian travellers. We shall for the same reason examine with attention the most authentic narratives concerning the Laplanders themselves, a people who are generally considered a type of all the polar wandering tribes.

The Laplanders call themselves *Sabme* and *Same*; to that word the termination *lads* or *lain*, which signifies people or inhabitants, is generally added. They were first denominated *Finn* by the Scandinavian nations, but Saxo called them *Lappes*^e in the twelfth century, and they are always styled *Lepori* in the Russian annals, a name

^a "400 or 500 square leagues."

^b This popular opinion has been confirmed by Von Buch.

^c "Poule de neige"—Ptarmigan (Perdrix de neige.—Cur.)

^d Throat blue.—Cur.

^e *Lappen*, German; *Lappones*, *Lappii*, Cluverius.

which is probably derived from some obsolete Finnic word. A Laplander may be known by his short stature, generally from four and a half to five feet, his wide visage, hollow cheeks, sharp chin, thin beard, dark and coarse hair, and sallow complexion. A higher stature, a whiter skin and hair of a different colour are exceptions to the common character, or proofs of a mixture with other tribes. Hardened by his rude climate, the Laplander is strong and active; a young man can outstrip on his snow-shoes the fox and the wolf, the rigid bow yields to his nervous arm, and in his more advanced age he carries heavy burdens, or swims across rivers. But no instances of great longevity can be cited; on the contrary, few of them live longer than fifty or sixty years, and although they are very cleanly in their habits, many suffer much from disease. They are at once passionate and timid; their cholera may be easily excited, but their fear prompts them to dissemble or suppress it. Every stranger is considered a spy, whose object is to discover their wealth, that a heavier impost may be exacted. Paper money was attempted without success to be introduced amongst them; fathers then concealed their gold and silver in the cavities of rocks, and forgot sometimes to tell their children where their wealth was deposited. This distrust is accompanied with great avarice and selfishness; he who has any thing to sell, always tries to cheat the purchaser, and the cunning Russian is often the dupe of the Laplander. Without pity and without compassion, they rarely assist the poor or wretched; without honour, they frequently acquire wealth by dishonest means.^a Their marriages are contracts of sale, and in many instances ill adapted to dispel the tedium of a solitary life. Relatives and kindred entertain each other, yet their hospitality is not disinterested, and the brandy bottle is the only talisman by which a stranger can be admitted into the hut or tent of a Laplander.

It ought, on the other hand, to be remarked that the nation was long degraded by a superstitious worship, in which nothing like morality was ever enjoined, and the people, independently of that cause, have not been improved by their intercourse with rude sailors and avaricious traders. It is not much more than thirty years since paganism was ostensibly abolished. Spirituous liquor may still be conveyed into the country with too much facility. The fishermen spend in this way the half of their income, and the shepherds repair to the spirit shops, and drink together a whole day until they are stretched on the ground in the sleep of drunkenness from which they often pass into that of death.

The Laplanders are divided into two classes, and the shepherds are superior in many respects to the fisherman. The care of tending the flocks devolves on all the members of the family, who have separate dogs that obey only the voice of their master. The reindeer are marked in different ways on the ear; such as give milk or nourish young, are thus distinguished from others that draw the sledge, or are fattening for the butcher. A good shepherd can observe by glancing on his numerous flock, if any be missing. It is a fine sight to see a whole family and a thousand reindeer returning to the fold, and the young girls milking the reindeer, while the boys hold them by ropes bound round

the horns. The pastures are quickly consumed, and the Laplanders are frequently obliged to migrate. Changes of this sort are sometimes indispensable almost every month in winter. The shepherds live in tents, which consist of stakes placed in the form of a pyramid, and covered with thick and coarse cloth. The smoke escapes from an aperture in the top, and pots and kettles are suspended over the fire from chains attached to the same opening. Reindeer skins stretched on branches of birch trees are, during the day, the seats of about twenty individuals, and at night the beds of the same number. It is there that the Laplanders seated on their heels after the manner of eastern nations, spend in the beatitude of idleness all the moments they can spare from their pastoral labour. It is there that fathers, mothers, children and dogs, and servants and travellers, if there are any, sleep. The tent or *kota*^b is encompassed with stakes, the different provisions are kept in boxes attached to them, and chests are ranged on the inside round the cloth or covering, but these precautions are often unavailing against the impetuosity of the blast.

The sledge of a Laplander is not unlike a small *wherry*,^c and the person within it must keep himself in equilibrium. The reindeer draws by the forehead,^d and performs frequently a journey of fifty or sixty miles, but it sometimes stops from the want of wind, or quits its direction in quest of moss, and at the end of three days the best of them are unfit for service. A family of Laplanders travel in a number of sledges, which are divided into *raids* or lines; the father the mother and each child guide a reindeer. Different articles of trade are transported by the poorest inhabitants in the same manner. The Laplander has recourse to his snow shoes in winter, and travels or pursues his game with much boldness and extraordinary rapidity. In summer he travels on foot and loads his reindeer with his merchandise; he makes use too of a frail bark, which is moved on rollers from lake to lake, and as many of the lakes are situated near each other, this is the best method of travelling in several parts of the table-land. A journey into the interior in the midst of summer, during a perpetual day, is attended with much inconvenience; the transport of goods is then more difficult, the rivers are so many barriers, the insects are troublesome, the heat is oppressive, and the forests are occasionally on fire. Linnæus mentions one of these fires produced by lightning. "The devastation extended to the distance of several Swedish miles.^e The part which I crossed was not less than three quarters of a mile; all the wood was consumed, and the trunks of the trees were still burning. The wind rose suddenly, the flames were rekindled, and a noise was heard in the half-consumed forest, like the shock of two conflicting armies. It was fortunate that my companions and myself were not crushed by the trees that fell on every side around us."^f

The Laplanders cover themselves with cloaks of the reindeer's skin; their pantaloons and boots are made of the same substance, which is dressed in different ways according to the seasons. The women put on cloth trowsers in winter, but they wear a lighter sort during the short summers. The same persons are the only tailors in the country, and

^a "Without honour, they are obsequious to wealth, however it may have been acquired."

^b *Gamma* and *Koya*, Norwegian and Swedish.

^c Like a boat with a flat stern.—P.

^d This does not correspond with the usual statements and figures. "In yoking them to the sledge, a broad collar of untanned deer skin is put over the neck, from which a rope made of thongs, cut from seal skin or the hide of an ox, passes under the belly between the fore and hind legs, and is fast-

ened to the sledge by a hole in the fore part of the keel. A broad girth is sometimes brought round the body of the deer, with an opening below the belly to let the rope pass through, and to keep it steady in pulling the vehicle. A rein, or thong like a halter, is fastened to the head of the deer, and is used in directing his movements."—*Ed. Encyc.*—P.

^e A Swedish mile is equal to $4\frac{1}{4}$ English miles. [6.65 Eng. miles.—P.]

^f *Lachesis Lapponica*.

they spare no pains in adorning themselves. Their dress is showy and somewhat like that of savages; the shape of the cap varies in different districts, but it is everywhere covered with tufts of tin thread.^a A girdle thickly studded with tin or silver ornaments, is a part of their costume, and a purse hangs from it, which contains their money, tobacco, needles, scissors, and a knife; bracelets, silver and tin chains, and numerous rings are the ornaments of both sexes. It appears from the *Sagas*, that the ancient Finns manufactured several articles, which they now purchase; even the goddesses of the Scandinavian Asgard were indebted for their jewels to the magical art of the dwarfs in Finmark. The modern Laplanders make very fine thread from the nerves and entrails of reindeer, strong cord from roots, horn spoons and snuff boxes, that are prized in Sweden, and the wooden figures, which they carve on some of their sledges, might perhaps merit the attention of antiquaries.

The shepherds live well, and the stranger is sometimes invited to partake of good soup, an excellent roast bear's ham and a dish of *kappatialme*, or rich cream with delicate conserves. The cheese made from the milk of the reindeer is at least equal, if not superior to any other, but the butter is so bad as to be hardly eatable.^b The care of the kitchen has, since the introduction of Christianity, been committed to the women, who were formerly supposed to be polluted and unworthy of the office.

The life of the fishermen is very different from that of the shepherds; the former have associated so much with the Finnish *Quanes*, that they have almost forgotten their original dialect, and are likely, ere long, to become a wholly distinct tribe from the real Laplanders. Their wooden and clay cottages are built near their fishing stations, and their boats are constructed of light planks bound together with cordage made of roots; but if we judge from the nets that are stretched across the streams to impede the salmon, or from the hooks that are used for taking cod in the gulfs, their knowledge of the arts must be very imperfect. Provisions are often exhausted in winter, and many are then reduced to live on the ground bark of the pine tree, kneaded with reindeer's tallow. It is affirmed, that the women in Finmark manufacture different woolen goods,^c but much accurate information has not hitherto been obtained concerning the fishing tribes on the coast of the Frozen and White Sea.

The Laplanders assemble occasionally at feasts, and seldom depart before their provisions are consumed. The *puolem-vine*, or brandy brought from Flensborg, circulates freely, and mirth is evinced in noisy loquacity. All the guests thunder the wild discord of their *jõilas* or national

songs, and the amusement is sometimes varied by cards, which are made from the bark of trees, and coloured with the blood of the reindeer. Hundreds meet at marriage feasts, and remain perhaps longer than the bride or bridegroom would wish. Children are brought up without much trouble; as soon as a son^d is born, several reindeer are set apart for him, which are his property, and he receives afterwards his share in succession.

The study of the diseases to which savages are subject, and of the remedies which they employ, leads often to unexpected results. Thus the *oulem* or colic occasioned by the rapid and heated water of lakes and marshes, could hardly be supposed a disease of polar countries, but it is not uncommon in Lapland, and the specific employed against it, is a sort of fungus that grows on birch trees; small fragments are set on fire, applied to the part affected, and allowed to burn slowly.^e

The language of the Laplanders is a Finnic dialect, but it contains so many words which are obsolete or foreign to the mother tongue, that the inhabitants of the two nations require an interpreter to explain their meaning. The individuals of different tribes among the Laplanders themselves, cannot understand each other without much difficulty. It follows from these facts that the grammars and vocabularies published by the Danish and Swedish missionaries may throw some light on the general character of the language, and the identity or difference between several vocables.^f The numerous cases, the varied terminations of derivative nouns and verbs, the method of expressing pronouns by affixes joined to verbs, and lastly, the negative conjugations, are characteristics equally applicable to the languages of Finland, Esthonia and Lapland. The last is in some respects^g still poorer than the other two; thus there are five words for snow, seven or eight for a mountain, but honesty, virtue and conscience must be expressed by a periphrasis.^h The Laponic has been mixed, perhaps still more than the other Finnic tongues, with the German and Scandinavian, which were spoken by the conquerors, who were too often the tyrants of the Finnic race.ⁱ It is remarkable that some old Hungarian roots are to be found in the same dialect and not in the others connected with it.^k It has been inferred from that fact, and from their resemblance to the Woguls and other *Iougorian* tribes, that the Laplanders are the descendants of a Hunnic mixed with a Finnic people, or perhaps a distinct branch of the great Finno-Hunnic race, whose country, according to the fabulous history of Scandinavia, was the same as the one now inhabited by the Laplanders, and perhaps included also Jemtia, Dalecarlia, Osterdal and Wermeland. It is certain that the principal roots and derivatives

^a "Fil d'étain," [tinsel wire. *Ed. Encyc.*]

^b "The butter made from the milk of the reindeer has the taste of tallow."

^c "The women in Finmark manufacture woolen ribands."

^d It is simply stated in the original, that at the birth of each child, one or more reindeer are assigned to it. [It is usual at the birth of a child, to assign a female reindeer, with all her future offspring, as a provision for the boy or girl.—*Ed. Encyc.*]

^e "They have a species of *moxa*, which they call *toule* or fire; it is a kind of fungus that grows on birch trees, of which they apply a fragment to the part affected, and allow it to burn slowly." This does not imply that it is used as a specific in the colic only. "The great remedy employed for their diseases, especially for all aches and pains, is the actual cautery, which they apply by burning a piece of fine fungus, about the size of a pea, on the part affected."—*Ed. Encyc.*—P.

^f "The grammars and vocabularies published by the Danish and Swedish missionaries agree only in establishing the identity of the more important words and the general character of the language."

^g "In intellectual expressions."

^b Leem's *Grammatica Lapponica*, Copenhagen, 1748, (dialect of Porsanger.) Idem, *De Laponibus Finmarchia, eorumque lingua*, 1767. Ganander's *Grammatica Lapponica*, 1743, (dialect of Kemu.) *Hegström's Description of Swedish Lapland*, p. 69-86, (dialect of the mountains in the north-west.) *Lindhal and Oehrling, Lexicon Lapponicum*, Stockholm, 1780.

ⁱ Klaproth found *Germanic* words in the Finnic dialects. The proportion out of a number amounting to two hundred and twenty, was as one to twenty; * had the same philologist sought for Scandinavian words, in the Laponic dialects, he might have found as many more. Thus *Gammel*, old, corresponds with *gammel*. *Skautia*, a beard, with *skuti*, prominent, in Icelandic. *Walia*, a brother, with *felleds*, common, in Danish, *fellow*, an English word, and *Velaa*, a brother, in Albanian. *Kos*, a cow, with *ko*. *Nuur*, young, with *noor*, an infant, in Danish. *Kera-suat*, love, with *kierlighed* in Danish, and perhaps *caritas* in Latin. *Rokoem*, a mist, with *raukur*, darkness, in Icelandic. *Laire*, clay, with *leer*, in Danish. *Loma*, a valley, a shelter, with *lummig*, sheltered, warm, in Swedish, &c. &c.

* "He found about twenty in 220."

^k See Sainoviez and Klaproth. We shall mention one example; *ragy*, a valley, corresponds with *volgy*, a valley, in Hungarian.

in the Lapponic bear less affinity with those in the languages of Upper Asia, than any other Finnic dialect. It is perhaps a monument of the most ancient and barbarous tongues spoken by the primitive tribes of eastern Europe, and its origin is lost in that obscure but interesting period, in which our continent, like Africa and America in later times, was overrun in every direction by wandering tribes.

Many instances of human weakness might be collected from the superstition of the Laplanders—an universal idolatry in which the elements were typified, and a polytheism, by which every object in nature was changed into a god,^a formed the basis of their worship, which, it is true, has been often misrepresented by merchants and even by injudicious missionaries. One ludicrous error may be mentioned; the Laplanders, it is asserted, adore several idols that are termed *Stor-iunkare*, or, by interpretation, young noblemen or gentlemen, for such is the double meaning of that Swedish or Norwegian word. The supposed resemblance between the Scandinavian *Thor* and the Lapponic *Tiermes* may have originated from the confusion of tribes, or from their connexion with strangers. At all events, the most valuable information on the subject is contained in a work which has been overlooked by the German writers.^b

Radien-Athsie, the creator of the universe,^c and *Raiden-Kiedde*, his son, who governed in the name of his father,^d reigned in the highest heavens. These divinities soared in the *werald* or ethereal space, interfered seldom in the affairs of mortals, and were almost unknown except to the *Noaaidas* or men above the skies.^{e f} We pass to the powers in the visible heavens; *Baiwe* the goddess of the sun had under her command three inferior genii, that ruled over Friday, Saturday and Sunday. The air was the residence of an immense number of deities; they governed the elements, and were divided into two families. The one branch was sprung from *Jumala* or the good principle, who dwelt both in the clouds and in the water;^g it was the author of all the blessings we enjoy. The *Seites* were the offspring of *Perkal*, the infernal king; they assisted the wizards and all the enemies of humanity. The Swedish writers might have committed fewer errors had they always attended to the above distinction,^h which does not, however, obviate every difficulty.ⁱ On the contrary, there are many that it is impossible to explain, because the signification attached to the different names given to the divinities in different districts is now unknown. *Hora-Galles* is apparently the same as *Tiermes* and *Toratuwas*; he darts the thunder, breaks the rocks, and overwhelms the magicians with his double hammer. The same power presides over the seasons, the fruits of the earth, and the produce of the chase; but according to some traditions he was originally a mischievous genius, descended from *Perkal*, and afterwards educated and sanctified by *Jumala*.^k *Aykeke* or the aged is his surname, and his seven-coloured bow shines in the heavens. *Biag-Olmaj*,

the lord of the winds and tempests, and *Leib-Olmaj*, the god of hunters, appeared often in human forms and wandered on the holy mountains.^l The *Saincos* or the wicked spirits^m received in caverns the souls of bad men, or of all those that were not invited by *Radien-Athsie* to the higher heavens. The condemned were brought before *Jabme-Akko*,ⁿ the mother of the dead, who delivered the most guilty to frightful torments, which were inflicted on them by *Rota*, a hellish fiend, whose name was all that he possessed in common with one of the Odinian Valkyrias.^o

Such was the mythology of the Laplanders. We have given an account derived from scattered fragments; the system itself no longer exists. Whatever may be the worship of wandering barbarians, the advantages expected by their religious lawgivers are rarely if ever realized. Good and bad genii, whose power was exerted for the benefit or destruction of man, have been the objects of Lapponic devotion since their country was first visited by travellers. *Tiermes*, the protector of all living nature, was loved and adored in the cottage and the tent; the great *Seite*, the chief evil spirit, was worshipped and feared in solitary forests, or on almost inaccessible rocks; and *Baiwe* the goddess of the sun, had her sacred table near their dwellings. Sacrifices of male and fully grown rein-deer were offered to *Tiermes*; the same victims, together with dogs, cats and poultry, bled to avert the wrath of *Seite*, but the goddess of light accepted only the offerings of young and female rein-deer, and while the altars of the two former divinities were adorned with branching horns, the bones of her victims were placed in a circle round the sacred table. No images were erected in honour of *Baiwe*, but that of *Tiermes* was made of wood and changed every year. It was merely the trunk of a birch tree, part of which was rudely emblematic of the head;^p a hammer and a flint, the symbols of the god, lay near the clumsy statue. *Seite* had a stone for his idol, and, according to the fancy of the worshippers, the figure of a man, a quadruped or a bird was cut on it; but a stone that had been irregularly hollowed by the water of a cataract, was chosen in preference to every other. Some of these ancient idols are still to be seen in the island of *Darra*, which is situated near the foot of the great lake of *Torneo*; although the place is of dangerous access, it was often stained with the blood of victims. The priest determined every year to which of the three powers the great sacrifice should be offered. The magical ring was made to revolve on a drum, and if it fell opposite an idol the question was settled; but if all the gods refused the victims, the worshippers predicted some dire disaster.

The holy ground in ancient Lapland might have formed an extensive district. The adjective *passé* or sacred and *ayeka* or divine are still added to the names of a great many places.^q The picturesque banks of a lake, the rock which projected over a foaming cataract, the gloomy valley or ra-

^a "A general fetichism in which all the elements were worshipped, combined with a pantheism by which all nature was deified."

^b Iessen on the Heathenism of the Norwegian Laplanders, in continuation of Leem's Description of Finmark. ^c "The universal father."

^d To whom was transferred the power of creating and governing the world.—*Ed. Encyc.*

^e *Werald*, the universe, is a Scandinavian word; hence the English word *world*. *Ketta* signifies second, in Hungarian, Wogul and Ostiak. *Noaaid* appears to be of Samoiede origin, from *noa*, *noh*, the heavens.

^f "Hommes du ciel," men of heaven or divines.—The *Noaaid* were a privileged class of men, who performed all the sacrifices; in effect, the priests of their idolatry.—P.

^g "Who dwelt, according to some authors, in heaven, and according to others, in the water."

^h Scheffer, *Lap.* 61, 91, 92, 96. Hægstrom's *Lapland*, 195, 196.

ⁱ "This distinction accounts for numerous contradictions in the Swedish writers, but does not remove every difficulty."

^k Torner, *De origine Fennoorum*, p. 33—39.

^l *Olma* signifies a man.

^m "Spirits of the caverns."

ⁿ *Akko*, a mother, corresponds with *ank* in Samoiede.

^o *Valkyria*; plu. *Valkyriur*, the choosers of the slain, three females, in the Scandinavian mythology, who selected in battle such as were destined to slaughter, and conducted them to *Valhalla*.—P.

^p "To which was attached a knot from the root of the same tree, to represent the head."

^q "Lapland was full of places consecrated to religion, most of which still retain the epithets of *passé*, sacred, or *ayeka*, old or divine."

vine, and the island crowned with aged fir trees, were all of them consecrated to religious terror.^a Many stone and wooden idols, and alcoves from three to five feet above the ground, the places on which the victims were sacrificed, have been observed in Russian Lapland by modern travellers.^b It was customary to carve figures on sacred trees, some of which still remain. The Laplanders passed before their gods in profound silence, and the women, supposing themselves unclean, turned aside their eyes, or covered their faces with a veil.^c Great men were deified after death; their souls became powerful spirits, that were propitiated by sacrifices. The sledge which bore the corpse was overturned, and the rein-deer that drew it was slain on the tomb, which consisted of a pile of stones.

The navigators of the sixteenth and seventeenth^d centuries, have related many wonderful stories about the magic of the *Finns* or *Finn-Lappes*, who sold wind contained in a cord with three knots. If the first were untied, the wind became favourable; if the second, still more so; but if the third were loosed, a tempest was the inevitable consequence. The people in the interior had light and elastic balls made of wool, and *gans* or charms not much larger than flies.^e It was thought that the wizards could throw these magical weapons through the air, and strike the individual on whom they wished to inflict a lingering or mortal disease. The word *gan* or *gand* is common to the Finnic, Celtic, Scandinavian and German languages; it means generally deceit, illusion or magic;^f hence *Gand-wik* or the Gulf of Magicians, a name given by the Scandinavian navigators to the

White Sea, because all its coasts were at one time inhabited by Finnic nations. The drum was the great instrument of the magician; images were painted on it, the *arpa* or sacred ring moved to the strokes of his hammer, and from its motions he was able to foretell future events and the will of the gods.^g The wizard fell sometimes on the ground and counterfeited death; his colour fled, his respiration ceased, his spirit was supposed to travel into distant countries, frequently into the other world. When the soul returned after a long absence into the body, the magician told the spectators what places he had visited, and what he had learnt; remedies were prescribed, sacrifices enjoined, and whatever he commanded, was implicitly obeyed. The *Schamans* of central Asia exercise the same arts; they have their drums, and fall into similar ecstasies. The wizards of Lapland exhibited their tricks to intelligent Swedes, and these foreigners, though convinced of the imposture, confessed themselves unable to detect it. Different theories have been advanced, and the prophetic trances have been considered the effects of excessive intoxication and *animal magnetism*.

All the Swedish and Norwegian Laplanders are now members of the reformed church, they are Christians ashamed of their former superstitions and idols; but those in the ancient Russian territory are ill instructed in divine truths by the eastern priests,^h and although they profess Christianity, they still retain some of their heathen ceremonies.

^a Scheffer's Lapponia, p. 102.

^b Georgi, Nations Russes, p. 12.

^c Leem's Description of Finmark, chap. xx.

^d "Eighteenth."

^e "The Laplanders in the interior had their *tyre*, or light and elastic balls made of a yellowish wool, and their *gan*, or figures similar to flies."

^f *Gand* or *gan* signifies magic or witchcraft in ancient Scandinavian. See *Landnama-Bok*, vocabular. Worm. Specimen lexicæ Runicæ, p. 83. *Gand-reid*, magical equitation, Ibid. *Gand-alfur*, spirits and magicians that pass the water on enchanted staffs, Ibid. *Gan-eska* and *gan-hid*, a box for magical instruments, Ibid. *Ganas* is a word still used in Lower

Brittany for a deceiver. (Bullet.) *Engaño*, deceit, in Spanish; *Inganno*, the same signification, in Italian. *Gauner*, a sharper, in German. M. Roquefort need not have rejected the opinion of Bullet, who has clearly proved that the *ganellon* of the chivalrous romances, that betrayed the twelve peers of France at Roncesvalles, and delivered them to the Saracens, was merely a magician. See the word *gane* in the "Glossaire de la langue Romane."

^g The drum was called *quobdas* or *gobodes*, and sometimes *kannus* or *ganusch*.

^h Priests of the Greek church.

BOOK CVII.

EUROPE.

*Europe continued. European Russia. Fourth Section.
Provinces round the Baltic Sea.*

THE modern capital of the Russian empire is at no great distance from the polar deserts. Strangers may travel from Lapland to Petersburg on frozen lakes, without putting off their Lapponic furs, or leaving their sledge, or unharnessing their rein-deer. The Russian provinces round the Baltic are inhabited by Finnic tribes, that were subdued by the Goths and Germans, and the latter were forced to submit in their turn to the colossal power of Russia. The soil is barren, and the climate is cold, but palaces and temples are built on fens and marshes, and merchant fleets and naval squadrons are moored behind the neighbouring rocks. The Russian cabinet, which is enveloped in fogs or covered with hoar-frost, forms its political schemes, and extends its sway to the banks of the Danube, and the central regions of Asia. It is from these provinces that the Russian observes with indifference the wars and revolutions in Europe. Alas, for what purpose did Charles and Gustavus subdue the Finns, or the Waldemars display the *Danebrog* in Esthonia,^a or the Teutonic knights plant the cross in the blood of the Livonians and Courlanders?^b The czar of Muscovy issued from his unknown forests, and seized the fruits of so many heroic achievements.

These provinces are naturally subdivided by the Neva and the gulf of Finland. The present grand duchy of Finland comprehends, besides the former Swedish province of the same name, all the government of Wiburg, or the former Russian Finland. It makes up on the northwest about a third part of that remarkable *region of great lakes* to which we have already called the attention of our readers.^c We shall now offer some remarks on its physical geography and political history. If we enter into any details, it is because we consider them not destitute of interest, and because much useful information may be derived from the works of statistical and ethnographical writers.^d

Finland is nearly as broad as the isthmus formed by the White Sea and the Baltic, an isthmus which connects Scandinavia and Russia, although its physical character is different from both these countries. The range of the Scandinavian mountains terminates on the north of Norway, and the heights in Finland are inconsiderable and detached. If any of them retain the appearance of a chain, it is those between Ostrobothnia on one side, and Savolax, Tavastland and Finland proper on the other. These heights consist chiefly of slate and hard sandstone; they extend towards the town of Biorneborg, and terminate on the coasts of the

Bothnian gulf. But they are merely the declivity^e of the interior table-land, and the same is probably true of the chain of *Manselka* in the eastern part of Finland. The name of the latter signifies the *division of the land*, but no part of it has hitherto attracted attention. The southern confines of the central table-land are still lower; they are composed of a mass of granite, and at the foot of it are calcareous strata and fine marble in some places on the north of the lake Ladoga. The middle of Finland is thus a plain or ridge from four hundred to six hundred feet above the level of the sea. That part of the country abounds in lakes, and is covered with rocks, none of which form lofty chains, and they are generally composed of a red granite, which is termed *rapa-kivi*, in Finnish, and decomposes with extraordinary rapidity. Gadd, a Swedish naturalist, maintains that the decomposition is most rapid when the granite contains a small portion of quartz with a great quantity of red feldspar, and a variety of ferruginous and sulphureous mica; still, however, the granite with white feldspar is subject to the same spontaneous decomposition.

The circular or rather spiral excavations in some rocks in Finland, are called by the natives the *iette-grytor* or giants caldrons. Different naturalists suppose them to have been formed not by a former but the present sea, yet many are situated in the interior, and others on the shore.

It has been proved by repeated observations that Finland is ill provided with the metals which are so common in Scandinavia. It is believed, indeed, that there are no metallic veins in the country, but only alluvial deposits, which contain bog iron, lead, sulphur and arsenic. It is certain that iron was once worked in Finland proper, but the Finlanders now import that metal from Sweden. Although a great quantity of nitre is made in the country, that branch of industry might be still more productive.

Finland is intersected by an immense number of lakes, from which many rivers rise, but none of them water a great extent of country. Thus the *Ulea* and the *Kumo* enter the gulf of Bothnia, the *Kymmene* is precipitated by different cataracts into the gulf of Finland, and the wide *Woxa* enlarges the lake Ladoga. The most central lake in the country is the *Payana* or the *Peaceable*, from which the river *Kymmene* derives its source; it is about seventy-two miles in length, and thirteen in breadth.^f The lake of *Saima* on the east, which is crowded with islands, is still larger than the last. If its bays and inlets be included, it may perhaps be equal to one hundred and fifty miles in length, and to twenty or twenty-two at its greatest breadth.

^a The *Danebrog* was a banner presented by the pope to the kings of Denmark. [It is said to have fallen miraculously from heaven in a battle with the Livonians, and to have revived the courage of Waldemar's soldiers so that they obtained the victory. See p. 520 of this volume.—P.]

^b "*Lives and Kourcs.*"

^c See p. 362 and 377, of this volume.

^d Ruhs, *Finland und seine bewohner.*

^e "Escarpement."

^f "29 by 5 leagues"—80 miles long and 15 broad. (*Ed. Encyc.*)

It communicates by the Woxa with the lake Ladoga, after having formed six cataracts, of which that of Imatra is the most picturesque.

The coasts of Finland, particularly those on the south, are bounded by innumerable rocks of no great elevation above the sea. They rise for the most part in the form of peaks, and are united in some places into groups, and extend in others like chains. They consist of different varieties of granite and limestone, but it must be confessed that no very correct notion of them can be derived from the different topographical plans, which have hitherto been published. The small and intricate channels, the dangerous straits, the naked and rugged rocks, the tufted pines and firs which crown some islands, and the shrubs that cover the sides of others, render the labyrinth one of the wonders in physical geography.^a

The climate of southern Finland is cold and very variable; the thermometer descends so low as 24° or 25° below zero,^b and the crops are exposed in summer to excessive droughts. The country in the north of Ostrobothnia participates in the climate of Lapland, and grain is frequently sown and reaped in the neighbourhood of Uleaborg, where the soil is in general sandy, within the space of six weeks. The rapid growth of the plants must be attributed to the calmness of the nights and the perpetual presence of the sun. Frost continues seven months in Ostrobothnia; it begins in October, and does not terminate before the end of April. Spring therefore is almost unknown; summer begins in June, and ends in August; autumn and winter make up the rest of the year.^c The heavy rains in September, and the thaws in May and June, render it almost impossible to travel in these months.

The great disadvantage of the climate in the interior table-land arises from the lakes and marshes, which diffuse cold and unwholesome mists. The red granite, the moss-grown rocks, the green meadows, the blue lakes and crystal waterfalls are rarely illumined by a cloudless sky. The brightness of the tints is too often effaced, and all the scenery enveloped in dismal fogs. The lake is darkened, the meadow loses its verdure, and the only contrast that remains out of so many, is the noise of the tempest, and the silence of the desert.

A great part of the soil in Finland consists of a vegetable mould, and it is more fertile in many places than the hard and rocky ground in Sweden. The rye in the vicinity of Wasa, at 63° north latitude, is of a superior quality; buckwheat arrives at great perfection in Tavastland and Savolax, and barley and oats are every where cultivated. In good seasons the return is as eight to one of rye, and as seven to one of barley. The grain exported from Swedish Finland in 1795, amounted to 100,000 tons,^d but it exceeds rarely in ordinary years 45,000, and the inhabitants in the former Russian provinces cannot raise a sufficient quantity for their own consumption.

The cattle in Finland are small, ill kept and subject to contagious diseases, by which a great many are destroyed. The Carelian horses are hardier and stronger than those in Sweden, but a mixed breed has been introduced, which is ill adapted for the climate. A great variety of game, par-

ticularly different kinds of birds, are concealed in the immense forests; the bear and the wolf are also very common. The rivers abound in excellent salmon, and herring and seal fisheries have been established in the labyrinth of islands and rocks, which surrounds the coast of Finland.

The forests are too often laid waste, but they yield plenty of tar, pitch, potash, naval timber and fire wood. A hundred thousand cart loads of wood are imported every year into Stockholm; many of the peasants in Finland are employed in cutting wood, and each village has its wrights, joiners or turners, and the different articles that they make, are sold in the northern countries of Europe. The culture of fruit trees is not incompatible with the climate of Finland; cherries and apples ripen at Wasa and Jacobstadt in Ostrobothnia, and wild apple trees grow on the base of the hills that separate Ostrobothnia and Tavastland. The oak and the hazel-nut are rarely found beyond the sixtieth parallel, and then only in sheltered situations, but the ash extends to the sixty-second. The flax in Finland, though not very long or very fine, is at least as strong as the best in Russia.

The whole province is much more fruitful than might have been inferred from its astronomical position, and a sufficient quantity of food could be raised in it for two millions of inhabitants. But it must be admitted that human industry is checked by natural obstacles, which cannot be easily overcome. The rising corn is often destroyed by sudden frosts, and at the time when it is likely to reward the labour of the husbandman, it is sometimes devoured by a sort of caterpillar, which the natives call *turila*. Prayers were formerly read in the churches, and the divine protection was implored against that destructive insect. The peasants are obliged from the humidity of the air to dry all the grain in ovens, similar to those in the different Russian provinces; by this process, corn may be kept in Finland fifteen or eighteen years.

The excessive moisture of the soil may render the method which the Finlanders employ in clearing the ground, excusable, perhaps necessary; but if it be pushed to excess, it is most hurtful to the forests. The Finlanders have from time immemorial sown their seed in ashes obtained from the burning of trees. The lands thus cleared are divided into three classes. The *houkta* or *halmes* are those districts on which white firs and other old timber have been cut when the leaves are expanded; the wood remains two years in this state, it is afterwards set on fire, and rye is put into the ground. The *kaski* are the lands on which young trees are cut, and burnt about a year afterwards; the soil is then fit for barley or oats, turnips or rye. Lastly, the *kieskamaa* are the low hills on which shrubs and brushwood are cut in spring, and soon dried and reduced to ashes; crops of buckwheat or flax are sometimes reaped in the succeeding autumn.^e The trees are burnt in some places in the midst of summer, and the seed is sown on the same evening in which the fire is extinguished; thus the ashes adhere to it by means of the dew, and are less apt to be carried away by the wind. The ground is then turned up with the *kaskisachra* or forked plough,^f and broken with a wooden harrow, instruments much better adapted for the purpose

^a Manuscript Notes of a Finlander.

^b "— 30° to — 32°," Fr.

^c "The spring is limited to the month of May; the summer begins in June, and lasts three months; the autumn, like the spring, is confined to one month, and both commences and terminates in September."—*Ed. Encyc.*

^d "T. nes"—Qu. Dan. *tönder*, Sw. *tunnor*, barrels.—P.

^e "After which they sow the ground with rye, and a little later with buckwheat and flax."

^f "En forme de fourche," shaped like a fork.—"Its form is that of an alpha placed horizontally, having one side shorter than the other <, which, being tipped with metal, enters the ground, while the cattle are attached to the longer limb."—*Clarke*.

to which they are applied, than the common plough and the iron harrow. If the labour succeeds, the first crops yield about thirty or forty to one; nay, some fields have returned a hundred-fold.

The Finlanders have another method of cultivating the *kytæ* or marshy lands. A small piece of the earth is burnt, by way of experiment; if the ashes are red, it is a sign that the ground may be long and profitably cultivated; but if they are white, the land is supposed to be of a bad quality. The next object is to make outlets for the water; the trees, if there be any, are cut, and the whole space is after the lapse of some years, encompassed with a ditch. The roots are dug, and the ground is broken up and dried; the turf is then burnt, and the field is ploughed, harrowed and thus impregnated with ashes, and sown with rye as usual.

This ancient system of agriculture cannot be wholly approved or wholly condemned. There is no surer or better way of bringing fens covered with brushwood into cultivation. But the peasants are too anxious to clear the forests; fields, which might yield regular crops, are neglected, that greater harvests may be reaped from the ashes.

The shallows and cataracts in the rivers in Finland render them useless for navigation, and in addition to this disadvantage, they often overflow their banks and inundate the plains. The Swedes had sufficient reasons for not extending their excellent roads to every part of the province. Thus the progress of agriculture is retarded in the interior by the difficulty of communication. The peasants, it is true, have many boats, and enjoy the privilege of exporting the produce of their lands; still we must not forget the obstacles against which they have to struggle, or the short duration of summer, the weight and size of the articles that are exported, and the great distance from the interior to the mercantile towns on the coast. The northern Carelians must travel a hundred or a hundred and twenty-five miles^a to the nearest town. The Finlanders were compelled from their situation to make the utensils, the furniture and even the dresses which they required. There were whole districts whose inhabitants never repaired to a town but for the purpose of obtaining salt. The Finlander thus limited in his wants and desires, enjoyed a sort of patriarchal independence, and passed his monotonous days far from civilization or the bustle of commerce. In this way many lived and died, although at the gates of a large city, in which the luxury of Europe is united to the effeminacy of Asia. The comparatively recent junction of the province to the Russian empire, has opened an advantageous market for Finland, and the inhabitants are already more industrious.

The former government of Wiburg is divided into six small departments, and comprehends nearly the whole of Carelia or *Kyriala*, an ancient Finnic principality. The country abounds in sands and marshes, and the inhabitants gain a subsistence by cutting wood; by salmon fishing and the chase. They boast however of the pearls in the river *Jananus*, and the marble in the department of *Serdobol*. Ruskalk furnishes its ash-coloured marble with green and yellow veins, and Sumeria is famed for its fine red granite. The town of Wiburg was built in 1293 by the Swedes near *Suome-Linna*, the capital of the Carelians, and was formerly considered one of the bulwarks of Sweden. *Friderikshamn*, a more modern fortress, has, like the other, lost its military importance; in the same manner,

Wilmanstrand (Finn. *Lapperanda*), *Nyslöt* (Finn. *Savolänna*) and other fortifications rose into temporary notice from their position on the frontiers. *Rotschensalm*, on the contrary, ought to be more fully mentioned, because it is situated between the two mouths of the *Kymmene*. It is a fortified port, where forty ships of the line may anchor, and a station for a fleet of galleys; among its edifices are barracks for 14,000 men. This station, founded in 1795, was at that time the remotest frontier town in the province; but the Swedes have since had ample reason to repent that the noise of their cannon was heard in the neighbourhood of Petersburg. The utility of such an establishment^b is confined to the labyrinth of rocks which surround partly Sweden and Finland. The sea, flowing in a thousand straits and basins, rolls its impetuous billows, which are broken against projecting rocks; at another place, its calm surface is sheltered by islands against every wind. What ships then drawing much water could sail among rocks, where at every fifty yards they might strike a shallow, or be endangered at every island by the discharge of a twenty-four pounder from a concealed sloop? The various methods of warfare that might be employed on such coasts, can be easily imagined. A line of sloops may defend a passage between inaccessible rocks, or issue suddenly from an unknown strait. Two squadrons may be driven by currents against each other; they may mix, be confounded, and combat man to man. The best contrived schemes are often baffled by unforeseen obstacles, and victory is in a great degree the result of individual talent and courage. A vessel is frequently shipwrecked, or exposed to a masked battery. The assailants may be dispersed by the winds and waves, or the pursuit of the victors be impeded by a calm; in short, it is the most uncertain and various warfare of any mentioned in the records of modern history.

The department, formerly the prefecture of *Kuopio*, extends to the north of the government of Wiburg, and is formed on the east by northern Carelia, and on the west by northern Savolax or *Savo-Ma*, a country of lakes, forests and sandy heaths, where the bear, the wolf, the elk and the wild reindeer are found in great numbers. The lofty plains which separate the waters of the province from *Cayania*, are covered with snow ten months in the year. The inhabitants rear cattle, export potash, tar and butter, and raise a sufficient quantity of barley, rye and turnips for their own consumption; but the climate is too cold for peas, beans and the ordinary leguminous plants. Calcareous rocks and *lapis ollaris* or pot-stone are not uncommon in Carelia; and iron ore is found in greater quantities near *Stromsdal*, and in many other parts of Savolax, than in the rest of Finland. The inhabitants of *Taipali* in the parish of *Tibelitz* are now as industrious as the Russians, as great adepts in commercial knavery, and as rigid observers of the Greek rites; but the people in *Kuopio* and the other towns have not hitherto made much progress in the arts or civilization. Two large basins are marked by two series of lakes; those in northern Carelia are the *Pielis*, the limpid *Hoytiainen* and the *Oro-Vesi*, which extend from north to south, and discharge their waters into the *Puru-Vesi*, a gulf of the *Saimen*. The largest lakes in Savolax are the *Kalla-Vesi* and the *Hanka-Vesi*, both of which flow into the *Saimen*. The basins are not divided by contiguous heights but by necks of sandy or

^a "40 or 50 leagues."

^b The fleet of galleys.

rocky land, and some of the lakes in these basins are separated from each other by natural dikes, which are so narrow that a man can hardly pass them on horseback.

The department of *Heinola* or *Kymmenegard* is made up of lower Savolax and the eastern frontier of Nyland. The former part of it is sandy and marshy, but the land becomes more fruitful as we descend the Kymmene towards the gulf of Finland. The different grains cultivated in the department are the same as those which succeed in the other districts. A great quantity of butter is sold, rye is exported every year, and the inhabitants are now paying greater attention to the culture of hemp and flax. *Lovisa* and its citadel *Svartholm* are no longer a military station, but manufactures are still carried on in the ancient and dismal town of *Borgo*.

The Swedish prefecture of *Tavastehus* is now the department of *Helsingfors*, which comprises the greater portion of Nyland and Tavastland. The first of these provinces, or the Finnic *Uhsi-ma*, and the last or the Finnic *Haiime-ma*, are the most fruitful in Finland. According to the calculation of Professor Gadd, the quantity of corn exported from the two provinces amounted in good years to 27,635 tons, and in bad seasons to 14,224. The greater part of Nyland is low and flat, but some heights are observed in the interior,^a and the elevation of the lake *Loppis* is about 343 feet above the gulf of Finland. The rivers are well stored with fish; the forests are large, and many abound in oaks. Although rocks are thickly scattered in many parts of the country, much of the land is arable, the meadows are large, and the pastures are rich. Mines of copper and iron have been discovered, there is no scarcity of lime, and the hop yields plentiful harvests. Some manufactures might be mentioned, but the wealth of the inhabitants consists in the produce of their fields and rivers. They trade in fish, wood and grain, yet the greater number are too indolent to avail themselves of the best methods of husbandry.

Tavastland, particularly the southern portion, is a fruitful and compact district; it is watered by lakes and rivers, its forests are valuable, its fields and meadows productive; indeed, as to natural advantages, it is not only the first province in Finland, but none in the ancient kingdom of Sweden surpassed it in fertility, yet cultivation is neglected, and the inhabitants are poor. The lake Payana often inundates the neighbouring lands, and the falls in the river Kymmene shut effectually the only outlet for the produce of the country. Northern Tavastland is more mountainous, a greater portion of it is covered with forests, and it is partly included in the government of Wasa. The western lakes of Tavastland unite near *Tammersfors*, and flow by the *Kumo* into the gulf of Bothnia. *Tavastehus*, formerly called *Kroneborg*, and in Finnish *Häme-Kaupungi*, is the only place of consequence in the interior; it is built near the small fortress of *Tavasteborg*, which was converted during the last war into an arsenal for the left wing of the Swedish army. Some places not unworthy of notice are situated on the gulf of Finland. *Hango-Udd* or the promontory of Hango, is the southernmost point in continental Finland, but it lies to the north of several islands, which surround it. The latitude of the light-house at the entrance of the gulf is 59° 45' 58", and

near it is a spacious harbour protected by the fortress of *Gustafs-Vern*, now a very important military position for Russia, and formerly the bulwark of Sweden.^b *Helsingfors*, a commercial town in a fruitful peninsula, has a safe and deep port, and a rapidly increasing population of nine or ten thousand souls; it is at present styled the capital of the grand dutchy, and if we may judge from the advantages of its position, it is likely to retain the title.

The fortress of *Sveaborg*, the cause of great grief to the Swedes, and the principal trophy of the Russians, is not more than two or three miles to the south of *Helsingfors*. This model of modern military architecture is formed by seven fortified islands, which command a large harbour. *Långø*,^c the nearest island to *Helsingfors*, *Wester Svartø*,^d and *Bakholm* or the rock of the watch tower,^e are the three on which the houses of the garrison have been built. *Lilla Ester Svartø*^f contains an arsenal of artillery, and between it and *Stora Ester Svartø*^g is the station of all the galleys. The residence of the governor, and the principal magazines, are situated in *Wargø*,^h and the galleys and men of war are repaired in its two basins. The citadel is erected on *Gustafs Sværd*, or the sword of Gustavus, which is united to *Wargø* by a bridge; it possesses a reservoir of fresh water, an advantage that is not to be found in the other islands. *Skantzland*ⁱ is an eighth island, but its fortifications are not complete, and from its position on the south of *Gustafs Sværd*, it is the only place from which an enemy might attack the citadel, or, according to some authors, bombard it. This defect may soon be remedied by the Russians. The fortifications of *Sveaborg* are on a large scale; some of the ramparts are cut in the solid rock, and formed by a mass of stone about 48 or 50 feet in height; all of them are covered with gazon,^k and they are thus less likely to be injured by ricochet firing and the bursting of bombs. Many English travellers have admired the Roman grandeur of these works; yet the Gibraltar of Finland was entered and taken almost without resistance. A few bombs were discharged from batteries of ice erected on the frozen sea, and the governor surrendered. True therefore is the old Lacedæmonian adage—"the best ramparts are the hearts of the citizens."

Finland Proper or the province of Abo forms the south-west portion of the principality, which was subdued and civilized by the Swedes before the rest of the country was conquered. It is probably on that account that the population is more concentrated than in any other province, and the system of husbandry the best in Finland. *Abo*, the Finnic *Tourcou*, is situated on the banks of the *Aura*, which issues from lake *Pyhä*.^l The town, though no longer the capital, is one of the most agreeable in Finland; the inhabitants are industrious, although they derive little advantage from their proximity to Sweden.^m The university was founded by queen Christina in 1640; its climate is not genial, its endowments are trifling, still it enjoys no mean reputation. Amongst its distinguished students, were Gadolin the chemist, Franzen the poet, and the erudite bishop Porthan, who, in a series of dissertations, has thrown more light than any other author, on the history of Finland. The population amounts to 12,000 souls, the trade is con-

^a "But in the interior it rises suddenly, like a terrace."

^b "Très-menaçante pour la Suede," very dangerous to Sweden.

^c The Long Island.

^d The Black Island on the West.

^e "Ilot du Phare," Light-house islet.—In Danish and Swedish, *ø* signifies a larger, and *holm* a smaller island.—P.

^f The Small Black Island on the East.

^g The Large Black Island on the East.

^h Wolf Island.

^k Green sward or turf.

^l The holy lake.

^m "It was owing to its proximity to Sweden, that it long held the rank of capital of all Finland."

ⁱ Redoubt Island.

siderable, and the inhabitants have docks and sugar houses, silk and woolen manufactories. *Aboslot* or the citadel of Abo, which might maintain a siege for some weeks, is about an English mile^a to the southwest of the town. The numerous islands in the Archipelago of Abo have been remarked on account of the varied scenery which the stranger observes almost at every fifty yards. *Runsala*, which is covered with oak and hazel-nut trees, may vie in that respect with any English or Chinese garden. *Nystad* is a maritime town with a convenient harbour, its exports are corn, timber and sail cloth; some of the inhabitants are employed in manufacturing wool.^b *Raumo* is situated in the district of *Satacunda*, and its lace is supposed to be better than any other made in Finland. The trade of *Biærneborg*, another town in the same part of the country, might be greatly improved, if the *Kumo*, which issues from Tavastland, could be rendered navigable. A pearl fishery has been established at *Sastmola*, near the northern limit of lower *Satacunda*; two or three pearls are sometimes, though not often, found in the same shell.

The small Archipelago^c which fronts Abo, forms the most western part of the Russian empire, and it is separated from Sweden by the strait of *Alands-Haf*. The largest islands are *Aland*, *Lemland*, *Lumparland* on the east, *Ekeræ* on the west, *Kumlinge*, *Wardæ* and *Brandæ*. The whole group encloses an extent of 11,000 Swedish square miles, and the inhabitants may amount to 13,000. The hills on the islands are chiefly composed of coarse red granite; lime however is not uncommon, and one quarry is at present worked. The climate is not cold, and many of the islanders are good husbandmen. The common crops are rye and barley, and the average return is as seven to one. The forests consist of birch, alder and fir trees, which are exported every year to Stockholm. Six hundred and eighty species are enumerated in the flora of these islands, and the cryptogamia are not fewer than one hundred and eighty. The cheeses of *Aland* is exported into different countries from a small group of islands on the south, that form the parish of *Fugla*. The seal fisheries are very variable; in some seasons they are productive, in others few are taken, and the poorer classes are then deprived of their ordinary food.^d There are not many quadrupeds, the elk and the bear are never seen, the wolf is perhaps the most common. The rocks which surround the large islands are sometimes covered with sea fowl; a great many of them are sold in the neighbouring continent, and high prices are given for their eggs and plumage. The capital of Sweden is supplied with fish from the Archipelago, and 6000 tons of herrings are salted every year on the different islands. The mariners sail between Sweden and Finland, and their clean and well-furnished villages are an undoubted proof of their comparative affluence. The Swedish language is spoken, and the manners and customs of the inhabitants are little different from those in the same country. The islands of *Aland* formed a small Scandinavian kingdom long before the Swedish conquest of Finland, but the name of the village of *Iomala* might lead us to believe the existence of a Finnic population at a very remote period.

While we ascend the Bothnian gulf, we observe the plains

^a "One fourth of a Swedish mile."

^b "It exports corn, linens, and wooden ware. It has manufactures of linens, woolens and stockings."

^c *Aland* or *Åland Islands*, (Finn. *Ahvenan-Ma*.)

^d It is simply stated in the original that their flesh is eaten by the inhabitants.—P.

of Ostrobothnia, called in Finnish *Pohjan-Ma*, or the northern country, and *Kainu-Ma*, or the low country, of which the interior is not unlike the northern part of Savolax and Tavastland. The wolf and the bear haunt immense forests, or wander near innumerable lakes. The western part, particularly near the gulf of Bothnia, is for the most part level and sandy. Grain ripens rapidly in the south or in the district of *Wasa*, and a great part of the produce is exported. The other exports are butter, cheese, iron, and tar of a much better quality than that of *Ulea*. The *Kyro-Ioki* is the largest river in the province, and the principal towns are *Christinastadt*, *Kaskœ*, *Wasa*, which was founded by Charles the Ninth, *Carleby*^e and *Jacobstadt*; the two last are peopled by hardy mariners.

The northern part of Ostrobothnia forms the ancient prefecture or the present department of *Uleaborg*. The short and cold summers in that region are owing to the vicinity of the polar circle, to a northern exposure and a humid soil. Good harvests are rare; the seed cannot be put into the ground before the end of May or beginning of June, otherwise it might be destroyed by morning frosts.^f Trees are burnt and reduced to ashes on the fields, and by this method abundant crops are raised. The cattle, although of a small breed, yield more butter and cheese than the inhabitants can consume. Forests, marshes and moss-grown rocks cover the greater part of the country. Great quantities of tar are obtained in different districts; thus the town of *Uleaborg* exports from 27,000 to 29,000 tonsevery year, and no fewer than 2,160,000 fir trees are necessary in the making of that quantity. We are thus enabled to form some notion of the extent of the forests. The woods abound in squirrels, and the peasants kill them by means of dogs trained for the purpose. When the goods of a father are divided among his children, a well-trained dog is considered as valuable as a good milch cow. The cataracts of *Pyha-Kosky* and *Taival-Kosky* form the finest landscapes in the country.^g The stranger looks in vain for the genial climate of the south, but the further he advances northwards, the fruits on the shrubs become more fragrant and aromatic.

The town of *Uleaborg*, one of the wealthiest in Finland, contains 4000 souls; the people work in the manufactories or dock yards, and export tar, butter and salmon. *Brahestad*, derives its name from Count Brahe, the great benefactor of Finland. The towns are peopled by Swedes, and the country by Finns; the inhabitants of the former are polished and hospitable, their amusements serve to dispel the gloom of a winter that lasts nine months. The higher part of the river *Ulea* is little known, and the traveller who repairs to that region, might visit the large basin of the lake *Ulea*, with which a number of others communicate both from the northeast and southeast, and are united by rivers, which fall in cascades through thick forests. A few isolated farms, some of them thirty or forty miles^h distant from each other, are scattered in these deserts. The castle of *Hysis* is situated in the parish of *Paldamo*, which is more than 200 milesⁱ in length. A solid rock was cut and changed into a fortress; its ruins and gigantic staircase remind us of chivalrous times and the age of romance.

The inhabitants of Ostrobothnia are frank, hospitable and

^e There are two towns of that name in Ostrobothnia, *Gamla* and *Nya Carleby*, or Old and New Carleby, each of which has a good harbour.—P.

^f "The summer frosts are so much the more injurious, as the seed cannot be sown before the end of May or the beginning of June."

^g *Koski* is a Finnic word which signifies a cataract.

^h "14 or 15 Fr. leagues."

ⁱ "80 leagues."

industrious. Some of the young women make before their marriage, a sufficient quantity of clothes and linen to last them a lifetime. It may therefore be naturally inferred that the fashions of the country are not subject to much variation. The Ostrobothnians are said to be the best builders of small vessels in Sweden; they used formerly to travel to different towns in which they were employed as shipwrights. The people in the interior are of Finnic origin, and those on the coast speak the Swedish language. The governor of Uleaborg extends his sway over a part of Lapland, and by the efforts of Finnic husbandmen, agriculture is now extended in his province, as on the coasts of Norwegian Lapland, beyond the polar circle. The wandering Laplanders seldom appear in the colony, but the reindeer has multiplied on the hills of Manselka, in the interior of Ostrobothnia, where flocks of these animals find the moss necessary for their subsistence. It happens sometimes that the peasants of Uleaborg cannot obtain enough of flour for their own consumption, and the poorest often eat bread made from the bark of trees.

The grand dutchy of Finland, which we have endeavoured to describe, was not the country of the *Fenni*, whom Tacitus mentions, or to speak more correctly, the information that the Roman historian received, did not relate to a separate country, but to a distinct people. The *Phinni* and the *Zoumi* or *Suome* are vaguely placed by Strabo and Ptolemy in Poland. Jornandes wrote several centuries afterwards, and although he gives an account of the *Finni* and their different tribes, it is difficult to discover what region they inhabited. They resided beyond *Scanzia*, but the historian of the Goths says nothing concerning the eastern limits of that country. The *Esti* of Jornandes and Other, were probably of Finnic origin, although they dwelt far to the south of the present Esthonia. It is certain that Finnic nations migrated to the north, but the cause of their migrations is now unknown. The learned Thunmann has shown that some Finns remained in eastern Prussia so late as the year 1259;^a yet no mention is made of the time that the first Finns entered Finland. Three nations, the *Quaines* on the north, the *Kyriales* on the southeast, and the *Ymes* or *Iemes* on the southwest, inhabited that country in the tenth, eleventh and twelfth centuries. It may be inferred from the names of different places, especially in the eastern districts, that the shepherds of Lapland wandered among these settled tribes.^b The *Quaines*, who are frequently mentioned by the Icelandic writers, called themselves *Kainu-Lainen* or inhabitants of the low country, and were termed *Cayani* by the modern Latinists. The same people inhabited Ostrobothnia, and also settled in Lapland and on the shores of the White Sea, which derived from them the name of *Quen-Sea* or *Quen-Vik*. The *Quaines* submitted to kings or warlike chiefs, who made war against the Norwegians, when the latter established themselves in Helsingland and Westrobothnia, and when they pillaged the coasts of the White Sea. It is possible that a branch of the same tribe advanced to Kiow in the south of Russia; at all events that place is often called *Könugard* or the town of the *Kaines* by the Icelandic historians; but it is not impossible that the last name may have been common to another Finnic tribe. Ostrobothnia is still called *Kainu* or *Kainu-ma*

by the Finlanders.^c *Adamus Bremensis* happened to be present at a conversation in which king Swenon spoke of *Quen-Land* or *Quena-Land*, the country of the *Quaines*, but as the stranger's knowledge of Danish was very imperfect, he supposed the king had said *Quinnaland*, the country of women or Amazons; hence the origin of his *Terra Fennarum*.

The *Ymes* of the Scandinavians, or the *Iemes* of the Russians, took the Finnic name of *Heima-Lainen*; they inhabited Tavastland, Nyland and Finland Proper; it is likely too that their colonists settled in Swedish Nordland.

The *Kyriales* or *Carelians* possessed all the countries on the north of lakes Ladoga and Onega from the gulf of Finland to the White Sea. The commercial republic of Novgorod, and the warlike Swedes, contended from the year 1156 to 1293, for the preponderance over these simple and rude people, who seldom cultivated their fields, and subsisted by hunting, fishing and rearing cattle. The heads of families exercised a despotic authority, and the women were treated as slaves. The Finns were then ignorant of that imperfect system of husbandry which has been continued amongst them to the present day. They practised, however, some mechanical arts, and among others, that of working metals; they had names for silver, iron and copper, and according to a popular tradition, the most ancient mines in Scandinavia were discovered by the Finns.

The mythology of the Finlanders was connected with the religious notions of the Laplanders and Biarmians; but their traditions were not collected before most of the inhabitants had been converted or at least baptized by catholic missionaries. The Supreme Being was *Rawa* or the *old*; his name recalls the *Radien* of the Laplanders. It cannot be determined if there was any affinity between that divinity and the good and evil principles, or *Jumala* and *Perkel*. Two sons of *Rawa* act a conspicuous part. *Wainamoinen* created fire, invented the *kandela* or Finnic lyre, built the first ship, and taught men almost all the arts of civilization. *Ilmarainen* reigns over the air and the winds; to him men are indebted for the forge, and he assists his brother in all his contests against the wicked genii. *Veden-Ema* or the mother of the waters was adored by the Esthonians, and *Sakamieli* or the goddess of love was not unknown to the Laplanders. The *Tavastians*, a branch of the *Ymis*, worshipped *Turris*, the god of war, a divinity that has been confounded with the Scandinavian Thor. The name of the former is derived from a Finnic word, which signifies a battle. The people were hunters and lived in more southern countries, when their mythology flourished. Thus *Tapio* protects bees, cures wounds and tends the flocks; he leads the hunter into the forests, but allows his sister or his wife *Tapiolan-Emenda* to guide her worshippers in the pursuit of wild fowl. It was vain however to attempt to kill a quadruped without imploring the aid of *Hysis*, a sullen and formidable giant, the destroyer of bears and wolves. They adored also several petty divinities, who presided over the meaner game of hares and squirrels. To the different rural divinities of the *Carelians* were reserved the care of rye, barley and oats, but *Kekki* was the general protector of agriculture. His name signifies a *cuckoo*, and the god might have been so called in allusion to the spring, or the Finnic divini-

^a Thunmann, Recherches sur les peuples du Nord, p. 18, 23.

^b Gerschau maintains in his history of Finland (1810,) that the Laplanders only were called *Finns*, and that they were driven from the country by the *Quaines*, the *Ymes* and the *Kyriales*, whom he includes under the

name of *Tchudes*. His hypothesis is perhaps taken from the work of *Lehrberg*, which I have not hitherto been able to consult.

^c Torfæus, Hist. Norweg. l. p. 160, from the *Eigla*, an Icelandic work. Schœning's Ancient Geography of Norway, p. 28, 30, (in Dan.) Gatterer's Historical Library, V. p. 317, 329, (in Germ.)

tics might have been represented by the figures of animals. Finland was also the country of giants, gnome-like spirits and supernatural beings that frequented the deserts, murmured in the waterfall, raged in the tempest, and illuded the traveller and the hunter by a thousand fantastic forms. Magic was universally believed; it was connected with the worship and manners of the people, but degraded by the low arts and vulgar deceit of the priests or wizards. The ancient traditions have unfortunately been mixed with others of more modern date; little information can therefore be derived from them. Music was a very powerful instrument in the old superstition; by it the sands on the sea shore were changed into diamonds, the corn danced into the barn yard, trees moved in harmony, and bears listened to the notes of Wainamoinen's lyre. The divine minstrel, seized by the power of his magic, fell into ecstasies, and shed a fountain of pearls, instead of tears.^a It is certainly not a little extraordinary that the attributes of an Orpheus or an Amphion can be found in such a country as Finland. We shall not inquire whether the Finns inhabited formerly a region on the banks of the Tanais, not so far distant from Greece; but their present country, though very different, might impress the mind with strong emotions. The roaring cataract, the calm lake and the rugged rock were the *pyha* or holy places in which their ancestors worshipped. The hell of the Finns, like that of the Irish, was situated in their native soil. According to the national songs, the souls of wicked men were sent to *Kippumaihi*, a place on the banks of the Kemi, where a large stone with an excavation in the centre, was often stained with the blood of victims. The priests only were permitted to approach it.^{b,c}

The Finnic language is perhaps the most sonorous and best adapted for poetry of any in Europe. It is not unlike the Hungarian; all the words terminate in vowels, and two consonants rarely follow each other. The letters *b*, *d*, *f* and *g* form no part of their alphabet, but some foreign words have been introduced, in which the three last consonants are used. Michael Agricola, bishop of Abo, was the first foreigner who wrote in Finnic; he published his translation of the Scriptures in 1558.

Three dialects, those of Carelia or Savolax, Ostrobothnia and Finland proper, are still spoken in the country. They correspond with the three tribes, or the Kyriales, Quaines and Ymes. The Esthonians and Finlanders can understand each other. It is very unlikely that any information can be gained concerning the origin of the Runic characters used by the Finns. It is uncertain whether these characters were communicated to the Goths of Scandinavia, or whether the letters of the one and the other people had a common origin during the age of Odinism, in a period anterior to the vulgar era. It might not, however, be difficult to show that the Finns, the Wends, the Anglo-Saxons and the Scandinavians were accustomed to write on rocks with a spear or sharp-pointed instrument.^d

The present Finlanders are grave, but intrepid and indefatigable. They can endure the severest privations, but their perseverance is little removed from obstinacy. Their attachment to their national name, customs and language, rendered them incapable of appreciating the blessings of civilization, which the Swedes were anxious to diffuse amongst them. Their signal ingratitude to Gustavus the Third, is no

very favourable trait in their character. Had the Finlanders not been guilty of treason, that king might have made himself master of Petersburg. Although the people may rather submit to the Russians than to the Swedes, they are aware that independence is infinitely preferable to the domination of the czar; at present, however, they must remain satisfied with the forms of a national government. Russia and the grand dutchy have been declared two distinct but inseparable states, terms of ordinary occurrence in diplomatic logic, though wholly unintelligible when applied to history or geography. All the offices are held by Finlanders. The senate regulates the affairs of the community, and presides over the administration of justice. Swedish laws are still in force, and the national representation is the same as in Sweden. The diets of Finland were sanctioned by the presence of the Emperor Alexander.

The civil rights of the peasantry are as much protected as in any province of Sweden; if their freedom has in some districts degenerated into licentiousness, it may be attributed to the nature of the country and the habits of the people.

Public instruction was neglected before the time of Gustavus the Third. The Swedes are better informed than the inhabitants of most countries in Europe, but as they spoke a different language, it was impossible for them to communicate their knowledge to the Finlanders. But primary schools have been established for the last twenty years in Finland, and they have every year been more numerous attended. Many books are circulated, and wherever Swedes and Finlanders make up the population, sermons are alternately preached in the two languages. A Lutheran archbishop is primate of Finland, and the Greek priests make no proselytes.

If avarice and selfishness be the vices of the people on the southern coasts, if they have contracted habits of mercantile chicane, it must be admitted that the other inhabitants are charitable and addicted to hospitality. All the Finlanders, it is said, are revengeful and implacable in their resentments, an accusation which is unfortunately strengthened by the crimes and murders committed in the rural districts; still some allowance must be made for the animosity and mutual jealousy that subsists between the Finnic peasantry and the Swedish husbandmen.

Almost every Finlander is a poet or musician. A cottage surrounded by forests or marshes in the interior of the country is often the residence of a bard, whose rustic and simple songs enliven all the villagers. The polished odes of our academic poets are far inferior in point of genius and originality to the effusions of these minstrels. Their poetry is sung to the accompaniment of the *kandela* or lyre, and it is an important rule in Finnic versification, that most of the words in a line commence with the same letter, a sort of caprice, which is not unknown in other languages; for example, the ancient Scandinavian and the Latin.^e

The peasants reside in cottages or *parti*, that are not divided into apartments, and the wretched hut is warmed by a large stove fixed to the wall. The smoke issues by an aperture in the roof, or by the doors and windows. They are illumined during the long nights of winter by splinters of fir smeared in pitch. It is wonderful that the people can contrive to keep their clothes and linen so clean in these

^a Schroter, Runes Finnoises.

^b Ruhs, p. 26.

^c "The Finns are afraid to approach it."

^d *Runa* signifies a javelin in old Latin.

^e *Noctis et nimbium occaecat nigror.* (Ennius.)

^f *Ducite ab urbe domum, mea caruina, ducite Daphnim.* (Virgil.)

dark and smoky dwellings. Vapour baths are used by all the Finlanders, and it is evidently from the Finns settled formerly in central Russia that the same custom was communicated to the Slavonians. The baths are not spacious; several rows of stone steps rise one above the other in the form of a stair-case; they are heated from 130° to 160° of Fahrenheit,* and by pouring boiling water on red-hot stones, the place is soon filled with vapour. The bather

descends from step to step, and is in a short time covered with a profuse perspiration; he then washes himself in tepid water, and the office of drying and rubbing his body is always reserved for the women. The Finlander, before he puts on his clothes, rolls in winter on the snow, and in summer on the grass.

a " 56° to 64° Reaumur."

BOOK CVIII.

EUROPE.

European Russia. Fourth Section. Description of the provinces on the Baltic, continued and concluded.

ONE of the most remarkable combinations in the physical geography of Europe, may be observed on the south of Finland. The lake Onega approaches the White Sea, and pours its waters by the *Swir* into the great lake Ladoga, which flows through the broad Neva into the long and narrow gulf of Finland. If the level of the gulf were 600 feet higher, it might cover the whole country between it and the lake Onega; nay more, if we judge from the apparent elevation of the heights between the two basins, it might join the White Sea. The rocks in the gulf of Finland are composed of compact or shell limestone; the same substance is common in Ingria, and forms partly the basins of the Ladoga and Onega, but granite peaks rise in most places through the calcareous mass. The water is brackish and not very deep; it is shallow and deepens gradually along the southern coasts, and the central channel is marked by a great many light-houses. The eastern extremity of the gulf forms the bay of Cronstadt, which might be more correctly termed the embouchure of the Neva. The water is fresh and drinkable at Cronstadt; it flows in calm weather westwards, or in the same direction as the river; its course, however, is often obstructed by reeds and sand. The navigable channel terminates at the depth of two fathoms; large merchantmen have lighters, and ships of war never issue from the docks of Petersburg without floating butts.^a The mass of waters in the gulf is often impelled into the bay of Cronstadt by a tempestuous west wind. The Neva having on these occasions no outlet, recoils on the quays or streets of Petersburg, and rises to the first stories of the houses. Ships are sometimes thrown into the town, and casks of sugar, pipes of wine, books and furniture float in confusion. The billows have invaded the marble staircase of the imperial palace, and the czar and his generals have sailed in boats through the streets, and rescued citizens from a watery grave. The breadth of the Neva varies from five hundred to eight hundred yards; its limpid waters never freeze before the 29th of October, and the ice is never melted before the 25th of March. The lake *Ladoga* is surrounded on the north by calcareous rocks that contain quarries of fine marble; the banks in other places are low and sandy. Its bed consists chiefly of gravel; its water is clear and abounds in fish. The lake is covered every year with a thick crust of ice, and it is then that the

labours of the fishermen are most successful. There are more inequalities in the banks of the Onega, but in other respects its physical character is the same. The streams of its feeders fall in cataracts, or wind slowly through heaths and marshes.

The province of Ingria or Ingermanland derives its name from the small river *Ischora*, which is called *Inger* by the Swedes. This country was conquered by the Swedes in 1617, and ceded to Russia in 1721, and it now forms the greater part of the government of St. Petersburg. The western part was formerly called *Iama*, and the *Votes* or *Votialainen*, a Finnic tribe, peopled the western banks of the Ladoga. The *Ischores*, another branch of the Finns, still inhabit the country on the south of the Neva. The province is low, and almost wholly covered with woods or marshes. The soil is sterile, cold and humid. Indeed, with the exception of a few country seats, some parks and gardens, and several manufactories, belonging to the capital, the face of nature indicates poverty, wretchedness and want. Rye is raised with difficulty, cherries are confined to a few gardens, and bees are so seldom seen that a hive is considered a great rarity; but berry-bearing shrubs, wild fowl and different kinds of fish, are very common.

Many valuable observations have been made on the climate. An ordinary year may be divided into 162 days of winter or continued frost, 59 of spring, (in which season the mornings and evenings are frosty,) and 144 of summer or without frost. The mean *maximum* of cold in a period of seventeen years was equal to 23° below zero of Fahrenheit, and on the 9th of February, 1810, the thermometer descended so low as 35° 30' on the same scale. The heat of summer is occasionally as high as 93°. Frost begins commonly about the 27th of September, and continues to the same time in April. The greatest degree of cold in the year 1791 did not exceed 173° of Delisle;^b the number of frosty days was not greater than 188, and in 99 only the frost continued without interruption. The mean *maximum* of cold, as indicated by Delisle's thermometer, was equal to 170° during five days, to 160°^d during forty-four, and to 150°^e during a hundred and thirty.^f The highest temperature in the summer of the same year was greater than 110° of Delisle,^g and according to the mean result of different observations, it remained thirty-one days above 120°,^h seventy-seven above 130°,ⁱ and fifty-four above 140°.^k Lastly, it varied in a

^a "Chameaux," camels.

^b A hundred and seventy-three degrees of Delisle's thermometer are equal to 40° 21' of Fahrenheit, or—12° $\frac{1}{5}$ of Reaumur.

^c 8° of Fahrenheit. ^d 26° of Fahrenheit. ^e 32° of Fahrenheit.

^f "The cold surpassed 170° during 5 days, 160° during 41, and 150° during 130."

^g 80° of Fahrenheit.

^h 68° of Fahrenheit.

ⁱ 56° of Fahrenheit.

^k 44° of Fahrenheit.

period of 101 days, between 140° and 150° , or the point of congelation. It may be easily believed that the year in which these observations were made, was unusually mild. The winter lasts eight months in ordinary seasons, and in the remaining four the weather is variable.^a It appears from a calculation of the great Euler, that there are only sixty days in the year in which snow or rain never falls at Petersburg. If, says Pallas, the pear and plum trees be grafted, they perish in winter, and biennial plants rarely resist the cold. The country is often obscured with fogs; it abounds in musquitoes, and is colder than the province of Drontheim in northern Norway at the parallel of 63° .

The new capital of Russia was founded by Peter the Great in this unhealthy region, on a shallow port, which is frozen three or four months in the year, near marshes covered with ice, and on islands exposed to inundations. It was the monarch's first design to make Petersburg a military harbour and an arsenal. The small fortress of *Nyenschantz* had been built in the year 1300, at a short distance above it, on the banks of the Neva. It was taken in 1703 by Peter the First, who determined to change it into a place of defence against Sweden. It was not long, however, before he altered his purpose, or imagined that he had discovered the best station for the fleet which was to be established on the Baltic, and the most advantageous port for the foreign trade of Russia. So extravagant were his notions on this subject, that the seat of government was transferred thither in 1721. It would have been difficult at that time to have found a place in the whole of inhabited Russia, worse adapted for the capital. The czar did not perhaps expect to make himself master of Riga, otherwise it might have been chosen for a commercial port, and it was probably the desire of opening a prompt communication between the Neva and the interior by the canal of Msta and the Wolchowa,^b that induced him to undertake his great work. We differ from the admirers of that prince, because it was easy to have found on the banks of the Neva, a site better fitted for a town than a marsh, where the houses rest on piles, which may one day give way under the costly fabrics that they now support. The nobles refused at first to reside in a city that appeared to them a place of exile; but Peter wished it, and his energy enabled him to triumph over nature and the opposition of the nation. Petersburg was built, and although on an unfavourable position, it is now one of the most magnificent capitals in Europe; it is certainly the most remarkable on account of the number of its edifices, the size of its squares, the breadth of its streets, and the waters by which the heterogeneous mass is divided. The hexagonal citadel stands on the *island of St. Petersburg*; it is a fortress wholly useless as a place of defence, but it might control a revolted multitude. The cathedral church of St. Peter and St. Paul, where the emperors are interred, the small wooden house in which Peter the First resided, when he laid the foundations of the city, the botanical garden and the medical college, are situated in the same quarter, which

is cut into several islands, and the houses are the worst built of any in Petersburg. The *Wasili-Ostrow* or the *island of Basil*, on the west, is much larger; it was there that Peter the Great wished to found the city, and that the first houses were erected; its present inhabitants are mostly mariners and merchants. It consists of twelve long, broad and strait streets, which are called *Lines*, and the finest buildings are the custom house, the exchange, the hemp warehouse, the *twelve colleges* or ministerial departments, the seminary of the marine cadets, the university, the observatory, and lastly, the academy of arts, of which we shall afterwards speak more fully. The harbour of the galleys is at the extremity of the island. The quarter of the admiralty, or the residence of the court, the nobility and ambassadors, is the finest in Petersburg. It is an island which lies to the south of the two former; it is surrounded by the Neva and Fontanka, and divided into three parts by the Moika and Catherine's canal. The principal ornaments are the admiralty, the equestrian statue of Peter the First, the winter palace, the hermitage, the summer palace and gardens, and the costly churches of Isaac and the Virgin of Kasan. The last edifice adorns the street of the Neva,^c which is seven versts in length.^d The surface of Petersburg is not less than seventy-four square versts,^e but the buildings do not cover more than the thirteenth part of that space. There are six large and twenty-four small bridges, and the whole town consists of eleven quarters and fifty-five districts, and contains 450 public buildings, 9000 houses, and 300,000 inhabitants.^f It may be remarked that the population of Petersburg is distinguished from that of the other European capitals, by the extreme disproportion in the numbers of the two sexes. All the inhabitants amounted in 1813 to 285,500, and they consisted of 197,994 males, and 87,506 females. A garrison of forty or fifty thousand men, and a number of strangers equal to 36,000, are not sufficient to account for so great a disparity, more particularly as many individuals among the last class are married and settled in the town. There are at present at Petersburg 25,000 Germans, 2 or 3000 French, 1500 Swedes and 1000 English. Sermons are preached in fifteen languages. The Catholics are more numerous than the Lutherans, but the latter are at least equal to 20,000 individuals.

It has been maintained that the city of Peter the Great is not inferior to any in Europe, and the same place has been considered a confused assemblage of gaudy and inelegant monuments. We shall try to discover what is true in these conflicting opinions. Several edifices have been built according to the modern Italian style, modified by the caprice of different sovereigns, and their numerous defects may be attributed to these two causes.

The winter palace is a very large building that communicates with the hermitage, the favourite residence of Catherine, which joins the theatre. So great a mass of contiguous buildings on the banks of a river, produces a fine effect. The architecture of the *marble palace* sets all rules at defiance. The spectator observes many pillars and pilasters almost touching each other, of the same pro-

^a " — and in the remaining four there is occasionally snow and frost."

^b Rather by the canal of Wyschnei-Wolotchok, the Msta, which flows into lake Ilmen, and the Wolchowa, which flows from lake Ilmen into lake Ladoga.—P.

^c The street called the Perspective.

^d Two miles and a half. [The verst is equal to 1167 yards, or $\frac{3}{4}$ mile nearly.—Ed. Encyc. 3 versts are equal to 2 English miles.—Clarke. Consequently, 7 versts are equal to $4\frac{1}{2}$ miles.—P.]

^e Thirty-two square miles. [$32\frac{3}{4}$ sq. miles.—P.]

^f By a census in 1817, the population amounted to 285,000, of whom 55,000 were in the land and sea service, and 25,000 were foreigners.—P.

^g The number of houses is underrated; according to the statement in the text, there must be on an average more than thirty-three persons in each house.—Tr.

portions, but of different orders, and windows of unequal height in the same hall, varying sometimes from five to nine feet. Marble, bronze, copper and iron, are lavished in every direction, and the furniture is costly and of rare workmanship. The old summer palace is built of wood in a pleasant situation; the new one is constructed of bricks after the Dutch fashion. The garden of the same name is only remarkable on account of its granite colonnade, for although the statues *made in Italy*, are according to the German writers, masterpieces of modern art, they are, in the opinion of M. Fortia, below mediocrity. The academy of the fine arts was for a long time the only building admired by every stranger that visited Petersburg; but the churches of *Isaac* and *Kasan* are of a later date, and not inferior to any in that style of architecture, which is approved in places of Christian worship, and sanctioned by the customs of the Greek church. Twenty-six millions of roubles were expended on the first of these temples, which is wholly composed of marble; the second is an imitation of St. Peter's at Rome, and its peristyle is partly formed by fifty-six granite pillars. The equestrian statue of Peter the Great by Falconet, is placed at the entrance of the bridge across the Neva, on the side of the admiralty. The horse in this statue, as in many others of the same kind, is considered the finest part of the work. The Russian hero is supposed to have reached the summit of a rock, which is represented by an immense block of granite, that was found in a marsh about fifteen miles from Petersburg. It weighed upwards of 1336 tons,^a but it has been cut and polished, and the effect which so novel a pedestal might have otherwise produced, is totally destroyed. The exchange and many other buildings are admirable examples of that rustic but singularly varied style, that prevails in the ludicrous *pro-pylæa* of the French capital. The Russians may boast of Petersburg, the Parisians may extol Paris, but it is difficult to determine whether judges of classical architecture could find more to reprehend on the banks of the Neva, than on the banks of the Seine. The breath of the streets, the solidity of the quays built of granite, the profusion of porphyry and precious marble, and above all, the cheerful spectacle of a fine river and an extensive commerce, are the greatest ornaments in the city of Peter the Great.

Four fifths of the Russian trade are concentrated in Petersburg; its imports have amounted of late years from a hundred and twenty to a hundred and thirty millions of roubles; its exports have not increased in the same proportion.^b The inhabitants are making rapid advances in the arts; manufactories of tapestry, gilded bronze, porcelain, glass and crystal, are supported by the luxury of the court. The working of jewellery is carried to great perfection; the natives excel in that and other branches of industry. Communications are sent to Petersburg from most of the scientific or learned institutions in Europe; many societies have been established; among others, an academy of sciences, to which almost all the contributions have hitherto been written by Germans. Much has been done for the promotion of knowledge; many valuable libraries are now collected, and in no other town are there

^a "3,000,000 lbs."—1500 tons. *Ed. Encyc.*

^b The value of the annual imports is between five and six millions sterling, (120,000,000 to 130,000,000 roubles, M. B.) and that of the exports between four and five millions, (rather less than the imports, M. B.)—P.

^c Descriptions of Petersburg by Georgi, Storch, and Reimer. Picture of St. Petersburg by Muller Bagatelles by Fabri.

so many or so rare Chinese, Japanese and Mongol books. Theatres, assemblies, public walks and gardens, connect the amusements of Petersburg with those of the other European capitals, but the only diversions for which the climate is well adapted, are sledge races and real *Russian mountains*, not of wood but of ice. All the pleasures and refinements of civilization have been introduced, but there is no place on the continent where the expense of living is so great.^c

Country houses and vegetable gardens, cultivated by the industrious peasants of Rostow, are gradually becoming more numerous in the neighbourhood of the town. *Czar-skoe-Selo*, an imperial castle, is differently described by the Russians and by French travellers; the former consider it another Versailles, the latter a model of barbaric art; both these opinions are not incompatible. If we may judge of it from engravings, it appears to be an imitation of the ancient architecture that prevailed in France. *Peterhof* is surrounded by extensive gardens, fine streams and fountains, and near it is the Dutch house of Peter the Great.

Cronstadt, one of the fortified towns in Ingria, is situated on the island of *Kodloi-Ostrow*;^d its population exceeds 30,000 souls; it possesses three ports, and a convenient road, where large merchant vessels anchor, and their cargoes are forwarded to Petersburg in lighters. The same place is also a station for a division of the Baltic fleet; its fortress and the small fort of *Cronslot* guard the entrance of the gulf and the approach to the capital, which is not more than 47 versts or 31 miles distant from Cronstadt. *Schlus-selburg*, a small fortress at the place where the Neva issues from the lake Ladoga, has been changed into a state prison, and it was there that the unfortunate Ivan III. was confined and ended his days. *Gatschina*, a manufacturing town of seven thousand souls, is built on an imperial domain.

The town of Narva, though situated in Esthonia, forms a part of the government of Petersburg. It was founded or fortified in 1223 by Valdemar the Second of Denmark, and became soon afterwards a Hanseatic town; the Germans still make up the greater number of its four thousand inhabitants. We observe there the Gothic architecture of the ancient German towns, and the ancient simplicity of the German manners. The burgesses were led into captivity by Peter the First in 1704, but they returned in 1718, when the most of their privileges were restored. The *Narowa* falls from the height of 12 feet at a short distance above Narva, and the cascade contrast swell with the flat and level country on every side.^d

We have now to give an account of three provinces, which form physically and historically, as well as by the moral and political condition of their inhabitants, a distinct section of the Russian empire. Esthonia, Livonia and Courland are commonly called the German provinces. They were inhabited in the middle ages by Finnic tribes, or the Esthonians, the Livonians and the Krewings,^e and also by Wendo-Lettonian tribes, or the Lettonians proper, the Kures and the Semi gallians. The difference in their origin was the cause of perpetual contention between these weak tribes. It may be shown from their history

^d *Retu-Sari* is the Finnic name of the island.

^e Herbinus de Catacactis, p. 253. He calls the river the *Binnæ*, from a Swedish word. Germ. *bach*, Du. *beek*, Dan. *bæk*, Cumberland, *beck*, a brook

^f "Ehstes, Lives, Krewines."

that the Esthonians were united by a sort of confederacy, of which the councils were held at *Roukala*. The union was formed by the districts of *Ungannia*, *Murungonda*, *Saccala*, *Alentaken*,^a *Wirria*,^b *Havria*, *Jærvi*,^c *Lappigunda* and *Rotala*. The population of each district marched to the common defence of the frontiers, under the command of a *wana* or ancient; they were armed with clubs, swords and wooden bucklers. The Livonians did not enter into a similar confederacy, and the Lettonians invaded their country. The Kures or masters of maritime Courland and of the islands of Oesel and Dago, often pillaged the coasts of Scandinavia; and while the tribes were contending with each other, a career of enterprise and adventure was opened for neighbouring states.

These provinces have been successively subdued by five nations; their colonies are more or less numerous according to the time that the different conquerors were in possession of the country. But all the Russians, Poles, Danes and Swedes, do not form a population equal to that of the Germans. The trading or commercial classes migrated from the Hanseatic towns, and the nobles or lords of the rural domains came originally from Westphalia and northern Germany. These nobles are, in their own estimation, far superior to the Russians, whom they have been compelled to admit into their order. It is for these reasons that all the free inhabitants are called *Deutsche* or Germans, while the peasants, who were lately slaves, are styled *Un-Deutsche* or not Germans. These singular denominations took their rise in the time of the Teutonic knights.

The traders in the dutchy of Bremen, were the first who obtained any accurate information concerning Livonia. A Bremish vessel which sailed in 1158 for Wisby, a town in the island of Gothland, was driven by a tempest into the gulf of Riga, near the mouth of the Dwina. The country was then inhabited by the Lives, a rude people, with whom the strangers began to traffick. A Bremish colony settled afterwards amongst them, and founded the present town of Riga. The gospel was first preached to the natives by a missionary from Holstein about the year 1186. It cannot, on the other hand, be denied that these regions were visited by the Danes before the period last mentioned, or that they were known at an earlier age to the Scandinavian pirates by the names of *Austur-Rike*, and *Austurveg*.^d The natives were sometimes termed *Grikia* or Greeks from the Russians of the Greek church, who began betimes to conquer the country, and exact tribute. It may be naturally inferred from the proximity of the Swedes, that they must have been among the first to extend their dominions in the same direction. But the most ancient document is a letter of Erik, king of Denmark, dated 1093, and still preserved in the archives of the Esthonian nobility. Canute the Sixth having subdued the Pomeranian Wends, planned an expedition against Esthonia in the year 1196. The Archbishop *Absalon*, the great general of the army, gave his name to the town of *Habsal*, but the monarch conquered only the islands and part of the coast. Waldemar the Second or the Victorious, the brother and successor of the last prince, determined to connect these conquests with others made in Pomerania, and his ambitious projects were sanctified by the laudable pretext of converting the Livonians. The

Pope sent him the famous *Danebrog*, a red and white banner, which afterwards became the palladium of Denmark, and the king undertook the crusade. The Danish army was transported in a fleet of 1400 ships, of which the largest held a hundred and twenty, and the smallest fourteen soldiers. The battle of Wolmar was gained in 1220, and the whole of Livonia submitted to the victor, who baptized the inhabitants against their will. The Prussians were afterwards converted in the same manner. Waldemar founded Narva, Revel and other towns; and the conquered countries recovered their liberty during his captivity from the year 1227 to 1230. The Danes retained however part of their possessions, the towns in Esthonia remained faithful, and the island of Oesel, their last settlement, was not ceded to Sweden before 1625.

While the Danes and Germans were subduing these barbarians, or converting them by force, the *Order of the Knights of Christ*^e was instituted, a society of which the members adopted at first the same regulations as the templars, and acknowledged the bishop of Riga as their head. So long as the arms of Waldemar were victorious, the knights were only considered the auxiliaries of the Danes. It is certain, however, that Albert, bishop of Riga, made over to them in 1206, a third part of Livonia, although it did not belong to him; the donation was ratified by the Pope in 1210. Winno, the first grand master, styled the knights, the brethren of the sword, a name which was changed into that of *ensiferi* or sword-bearers; they were denominated the knights of the cross. They entered into a solemn union with the Teutonic Order in 1238, and submitted to all their statutes. Thus historians have often confounded these two societies, both of which transported the spirit of chivalry and of the crusades from the banks of the Jordan to the shores of the Baltic. It was then that a part of the sandy plains of Livonia was called Idumea, after a country bordering on Palestine.

The knights conquered Livonia and Courland between the years 1230 and 1240. Waldemar III. ceded to them Esthonia in 1346, and the sovereignty of these states was purchased from the grand master of the Teutonic Order by their grand master Walter of Plettenberg in 1551. The sword-bearers were by that contract, declared independent, and included in the number of the imperial states. The reformation by Luther penetrated about the same time into Livonia, and the new opinions tended to shake the power of the knights. The czar Iwan Wasiliewitch thought that a favourable opportunity had at last occurred, and he attempted the conquest of the provinces in 1550. The inhabitants of Narva and Revel, unable to resist the Russians, put themselves under the protection of Sweden. Gotthard Kettler, the grand master, ceded Livonia to the Poles, renounced his title, and became the first Duke of Courland in 1561, after having sworn fealty and homage to Poland. Thus terminated the petty empire founded by the sword-bearers, the men, say the monkish writers, that civilized Esthonia and Livonia, a correct assertion, if civilization is to establish a privileged caste, and to reduce the natives to the most disgraceful slavery.

The greatest misfortunes befel these countries after the suppression of the Order. The spoils were the cause of discord between Muscovy, Sweden and Poland, and a

^a The low country.

^b The wooded country.

^c The country of lakes.

^d *Austur-Rike* means the kingdom of the east, and *Austurveg* the road to the east.

^e The Order was instituted in 1201.

hundred years of war and bloodshed elapsed before Sweden obtained Livonia and Esthonia by the treaty of Oliva in 1660. Courland remained subject to the Poles.

The horrors of war were kindled anew in the 18th century, and the provinces were devastated by the Russians, who remained masters of them by the peace of Neustadt in 1721. The country had been governed sixty-one years by the Swedes, and although Charles XI. humbled the nobles, many of the Swedish laws continued in force; indeed, next to the changes effected by Luther's reformation and the influence of German literature, nothing has contributed so much to form the national character of the nobility, as the political institutions of Sweden. Russia, after having been long the terror of the inhabitants on account of its invasions, has since governed them with much mildness. The privileges of the aristocracy have been for the most part respected; if the order is not exempt from the military service, that circumstance forms a solitary exception to the general rule. The towns have been enriched by trade, for which their situation is well adapted. The admirable education that the higher classes receive, has opened for them an easy access to the most important offices in the Russian administration and in the different governments. Enlightened by judicious study, protected by Alexander I, the nobles in the three duchies of Esthonia, Livonia and Courland, have adopted the wisest and most philanthropic measures to bring the peasants from a state of bondage to civil liberty, to the condition of proprietors, and to that moral melioration without which freedom itself must be in vain.^a

The soil, the climate and the productions of the three provinces are nearly the same. Esthonia and the north of Livonia may perhaps, on account of their rocks and humidity, be compared to the *region of great lakes*, whilst Courland and the south of Livonia, abounding in sand and clay, resemble in a greater degree the *Sarmatian plains*. The whole country is low and flat, and to use a geological phrase, of the alluvial formation; many indications prove that it must have been covered at a comparatively recent period with the waters of the ocean. The highest hill, that of *Wesenberg* near the lake of Deven, is said to be 1200 feet, but it is by no means certain that it has been accurately measured. *Murna-Meggi* is about 1000, and none of the rest are higher than 500.^b *Blauenberg*, a sacred hill of the Lives, commands an extensive view over the plains of Livonia, but its elevation is not greater than 306 feet above the level of the sea. A few picturesque dales, some grotts and waterfalls may be discovered, but the general appearance of the country is that of a monotonous plain or a thick forest. Large beds of limestone, at some depth below the surface of the ground, extend throughout the provinces. The same rocks are seen on the islands in the gulfs of Riga and Finland; they are probably connected with those of Gothland in the middle of the Baltic, and also with others in Southern Fin-

land. Blocks of granite are scattered in different parts of the country, and the low coasts form a belt of sand, in which rocks are occasionally observed. The climate is much milder than that of Petersburg or Novgorod, and the thermometer descends rarely below 14° of Reaumur, or zero of Fahrenheit; yet the rivers are covered with ice in March and a part of April.^c May is in general a cold month, and sometimes accompanied with frost and snow. The first indications of winter are felt in September, and it is not often that the short summer elapses without cold and humid winds.

Pines, firs and birch trees thrive in the marshy forests; the white alder, the maple, the ash and the elm succeed on the good land; the oak, however, is a rare tree, and the 58th parallel appears to be, in these countries, the natural limit of its growth. Many species of willows are very common; but the linden is confined to Courland, the beech is seldom seen, and the hawthorn, the elder, the walnut and the chestnut are unknown.^d Bright flowers are disclosed in the late springs, but the natural grasses in the meadows are coarse and rank,^e and dismal mosses cover a great part of the plains. The plants which flourish in the marshes and stagnant waters, are nearly the same as those in northern Jutland and Smoland. The *Vaccinium oxycoccus* and *myrtillus* abound, strawberries and currants appear in equal profusion, but the cherries do not often ripen, and the apples, though plentiful, are of a bad kind; many are as transparent as those in the neighbourhood of Moscow, from which place they have probably been transported.^f Rye, hemp and flax yield good crops; little labour is bestowed on the culture of potherbs, and the peasants are ignorant of gardening.

Hares, foxes, bears and wolves frequent the forests and brushwood, but the last animal is the most common and the most destructive of any; its extirpation would be of great advantage to the country. The elk wanders in the wooded or desert districts, and the heaths are well stocked with grouse, woodcocks and a variety of wild fowl. The salmon fisheries are the most productive; next to them may be mentioned those of the *kull-strömling*, a species of small herring only found in the Baltic. The large lake of *Peipus*, which forms one of the natural limits of the country, abounds in breams and *Salmo maræmula*. The lake is about 75 miles in length and 37 in breadth;^g its banks are covered with sand, and the adjacent country is flat and unvaried. The lake of *Werziew*^h or *Werz* is the second in size, and those of *Fehsten* and *Marienburg* are comparable to any in point of natural scenery. Most of the rivers are small; the *Aa*, however, traverses nearly the whole of Livonia, and its Scandinavian name, which is common to other rivers, is little known in the country; the natives call it the *Goya*. The *Narowa* and its cascade have been already mentioned; the *Windau* forms another of twenty feet in Courland,ⁱ and the fish in passing it leap into the air, and fall in baskets arranged to receive them.^k

^a Essai critique sur l'Histoire de la Livonie, &c. &c. par L. C. D. B. (Le Comte de Bray,) Dorpat, 1817. The above excellent work renders others superfluous, but the different authors who have written on Esthonia and Livonia are mentioned, and their merits appreciated. A few of them may be cited. *Arndt*, *Lieflands Chronik* (1753), containing the translation of Henry the Letonian, 1181—1225. *Duisburg's* History of the Teutonic Order to the year 1326. *Russon* and *Kelch*, two able chroniclers. *Hiern's* History of Esthonia, Livonia and Lettonia. *Friebe's* Historical Manual, 1793. *Hupel's* Northern Miscellanies, 1781—91. *Merkel's* Ancient

^k Hupel's Topographical Account of Livonia and Esthonia, 2 vols. Riga, 1774, (in German.)—P.

VOL. II.—NOS. 103 & 104.

Times of Livonia, 1799. Much light has been thrown on the history of these provinces by the discovery of many manuscripts in Königsberg and Livonia; whatever valuable information they contain, is embodied in the work of M. de Bray.

^b Huningberg, in Courland, is 700.

^c "The rivers are rarely freed from ice before the beginning of April."

^d De Bray, Essai sur la Livonie, II. 320.

^e "Carex and Agrostis."

^f The transparency, says M. de Bray, is the effect of climate.

^g "30 leagues by 15"—60 miles in length by 30 in breadth. *Pinkerton*.

^h *Ierwa* is only the Esthonian *ierwa*, lake.

ⁱ Called the *Romel*. ^k *Georgi*, Description de la Russie.

The *Duna*, called by the Russians the western *Dvina* and by the Lettonians the *Drugova*, is the only large river; its length from its source in a lake on the heights of Wolchonski in the government of Tver, to its mouth below Riga, is not much less than 1000 versts or 666 miles; but its channel is obstructed in many places by calcareous rocks. The peasants in White Russia never ascend it, and it is often difficult for them to descend in their *struses* or barges. That obstacle is not the only one which diminishes the commercial utility of the river. It is shallow in the sandy plains of Livonia, and its streams are impeded by plants.^a M. de Bray collected in the *Duna* leaves of the *Butomus umbellatus*, which were upwards of 22 feet in length; they were carried down the current in thousands, and obstructed the course of the boats.

The dutchy of Esthonia is now changed into the government of Revel; the inhabitants amount, according to an approximate calculation, to 300,000, and of these the Esthonians (*Esths*) make up five sixths or nearly the whole peasantry; the remaining fraction is composed of the German nobility, some Russians, German burgesses and Swedish husbandmen.

The soil is not fruitful, the most of it is light and sandy, or stony and marshy; still a great quantity of rye, barley, hemp and flax is cultivated. The grain reaped in 1802, was not less, says Storch, than 931,530 *tshetverts*,^b the consumption did not exceed 678,537, consequently the excess was equal to 252,993, which is proportionably much greater than the surplus crops in Livonia; but no general rule can be formed from the extraordinary harvests of 1802. The trade of the country is greater than formerly, and its imports are increased.^c

The fortified town of Revel, founded in 1218 by the Danes in the time of Waldemar the Victorious, is situated in the ancient district of *Harria* or *Harenland*.^d It was once distinguished among the Hanseatic towns; its commerce, then very extensive, is still flourishing; many foreign vessels enter its harbour, which, though large, is difficult of access; it is also a station for a division of the Russian fleet. The town is peopled by 15,000 inhabitants, and the lower orders are employed in its large founderies and distilleries. The public buildings are the Gothic cathedral and a rural palace in the imperial gardens of *Ekatar-nendal*. *Baltic Port*, formerly *Rogerwick*, has an extensive harbour, but the opening is too great; it would require an immense dike to confine the inroads of the sea. The fortifications begun by Peter I. in 1719, and continued under Elizabeth and Catharine II. were abandoned in 1769. The station was then no longer necessary. *Habsal*, a small town with a convenient harbour, derives its name from the archbishop Absalon, a famous Danish general, who erected there the first cathedral in the diocese of Oesel, the ruins of which still remain.

The greater part of the ancient dutchy of Livonia is at present included in the government of Riga. It is peopled by more than 700,000 inhabitants, of whom 300,000 are Wendo-Lithuanian Lettonians, and 340,000 Esthonians

of Finnie origin. The northern districts are inhabited by the latter. The soil is more varied than that of Esthonia; there are a greater number of marshes, and also a greater extent of plains. The grain harvest of 1802 yielded 1,523,748 *tshetverts*, and the consumption was not less than 1,233,219. The exportation, considering the extent of the province, is inferior to that from Esthonia, but the population is more concentrated. The numerous distilleries form the most lucrative branch of the home trade, and the principal exports are flax and hemp. The forests are cleared in two ways, and both are equally ruinous to the country. The trees are sometimes cut and burnt, and the ground is afterwards tilled. The second method consists in tilling the land, and then covering it with trees brought from a distance, which are afterwards consumed. The fields are thus impregnated with ashes, and produce the first year a rich harvest of wheat or excellent barley; a tolerable crop of rye is raised the second year, and a good crop of oats the third. They are sometimes sown the fourth and fifth years, but their produce always decreases, and after that period they are wholly useless for fifteen or twenty years. The hay is of a bad quality; all the meadows are inundated or covered with ice in winter.

Riga, the capital of Livonia, is well fortified; it is situated on the northern bank of the *Duna*, at the distance of nine miles from its mouth. The population in 1799 was equal to 27,798 individuals, but according to Storch it was not greater than 24,515 in 1815. That author, however, did not include the suburbs, the inhabitants of which may amount to ten or twelve thousand; the whole number, therefore, could not have been much less than 36,000. A large townhouse, erected in 1750, many fine churches and a wide and convenient harbour, are the greatest ornaments of Riga. But the streets are narrow, and most of the houses are ill built.^e There is a bridge of boats on the *Duna*, which the Russians call the Living Bridge. The port is the second in the empire, and more than eleven hundred vessels sail to it every year.^f The exports consist chiefly of rye, barley, wheat, flax and hemp, wax, honey, potash, masts, planks and different kinds of wood. Many foreign merchants are settled in the town, and nearly all these articles are shipped in foreign vessels. The imports are not at present very valuable, but they might become so, if a canal were cut from the *Dvina* to the *Volga*, by which a direct communication might be opened between Riga and central Russia. The manners, laws and customs of the place remind the stranger of a German town under a Hanseatic republic. The burgesses have a share in the profits of the custom-house; they maintain a hundred soldiers, a corps of artillery, and a number of engineers. An arsenal has been assigned to them, and they have obtained on different occasions important privileges. Riga is surrounded with sand and marshes; the water of the *Duna* is turbid and unwholesome; and the city, from the nature of its position, is sometimes inundated. The same town is considered a bulwark of the empire, and it proved in 1812 a barrier against the invasion of a French army, guided by the genius of

Tallin, the city of the Danes, by the Esthonians, *Kolivan* by the Russians, and *Danru Pils*, or the Danish castle, by the Lettonians.

^f It is simply stated in the original that the streets are narrow; nothing is said of the houses. "The streets are narrow and crooked, but the houses, which are generally of stone, are neat."—*Ed. Encyc.*—P.

^e "There arrive annually from 900 to 1100 vessels, and sometimes more." The number of vessels which arrive are between 1000 and 1100 annually, and those which clear out from 900 to 1000.—*Ed. Encyc.*—P.

^a "Its waters, like those of all the other rivers in the country, derive a brownish tint from decaying plants."

^b The *tshetvert*, or Russian malter, is equal to seven pounds and a half, or 300 lbs.—[The *chetwert* contains 5½ Winchester gallons nearly. *Cyc.*—P.]

^c "The country is favourably situated for commerce, particularly for importation, and it is said for smuggling."

^d Germ. *Harrien*, *Harrische Kreis* (Harrian circle.) Esthonian, *Harjo Ma* (cultivated country.) Hupel, *Lief und Esthland*, v. I. p. 319.

^e *Revel* signifies a reef in Danish, and the town is called *Dani-Lin* or

Napoleon, until then unaccustomed to defeat. The fortifications are not very strong, and the place might have been easily taken, had not the army been weakened by severe hardships, and the soldiers discovered in the course of the campaign, that their leader was no longer invincible. Some other towns in Livonia may be shortly mentioned. *Wenden*, the Lettonian *Zehsis*, was the ancient residence of the provincial grand-masters of the Teutonic order. *Wolmar* derives its name from Waldemar II., king of Denmark, who gained there in 1220, a great victory over the Livonians. *Dorpat*, formerly a flourishing Hanseatic town, was wholly destroyed by the Russians in 1707. It has since that time been rebuilt of wood, and more than once burnt to the ground, calamities which have eventually contributed to its embellishment. It is at present peopled by 8500 individuals. Gustavus Adolphus founded and Paul I. re-established there a German university for the people of Livonia, Esthonia and Courland. The inhabitants have thus been enlightened, knowledge and civilization have been diffused, and every important discovery made in Germany or the rest of Europe, has found its way into the three provinces. *Pernau*, or, according to the meaning of the word, the town of lime trees, has a convenient harbour, and a hundred vessels laden with grain sail from it every year.^a

The government of Courland forms the frontier on the south of the Duna and the gulf of Riga, and extends on the west, like a promontory, between the gulf of Livonia and the Baltic. It is only the last part which is strictly called Courland, or the country of the *Coures* or *Kures*. The interior is known by the name of *Semigallia*, a word of which the two first syllables are a corruption of *semme*, *same* or *sums*, a region or country, but it is difficult to determine the signification of the others.

Courland is the most agreeable and the most populous of the three duchies; but the climate is severe and subject to dense fogs and sudden transitions from heat to cold. If the country near Windau and Goldingen be not included, the soil is every where rich, strong and argillaceous. Flax is the crop which succeeds best, and the province is much better cultivated than Livonia. The peasants, comparatively prosperous and intelligent, till their land with greater care. All the grain raised in 1802 amounted to 1,444,764 *tshelverts*, the quantity consumed equalled 1,168,930, consequently an excess of 275,834 was left. The population is greater than half a million, and not so widely scattered as in Livonia. The old *Kures*, who are chiefly husbandmen, make up nearly the whole number; almost all the nobles and burgesses are Germans. Two thirds of the inhabitants profess the reformed religion; the remaining third or the most ignorant part of the community have been inveigled into catholicism by the Polish party; but since Poland has ceased to exist, few or no converts have been gained. The Jews are increasing rapidly, and the cause of the evil is imputed to the toleration which the czar affords them.

Mittau, the capital of the province, and formerly the ducal residence, is situated on the Aa, which is called near its mouth the *Buller-Aa*, and in the Lithuanian, the *Lela-Upis* or great water.^b The town is peopled by 12,000 inhabitants; it covers a large extent of ground, and the greater part of it is intersected by fields and gardens. The new

castle in the neighbourhood was for some time a place of shelter for Louis XVIII. *Libau*, a trading town on the sea shore, contains 5000 inhabitants; its port is shallow, the houses are built of wood, and consist only of a single story. *Jacobstadt*, a small town on the Dwina, is the principal residence of the vagrants, who exhibit dancing bears in most of the European capitals.

The lake of *Sauken* in the parish of Jacobstadt, is two geographical miles in length, and more than a half in breadth. It was formed, according to the common opinion, after the earth had sunk to a considerable depth, and ingulphed all the habitations in the vicinity. Such a calamity is not improbable, although the time in which it happened cannot be ascertained. The fishermen find sometimes in their nets pieces of squared wood and other materials, which must have formed part of the houses; besides, such an event might have been expected, for the marshes, like those in Livonia and Lithuania, are often covered with a crust of peat or turf, which becomes gradually thick and hard, and affords at last a temporary support for the dwellings of men.

The promontory of *Domesnes*, which extends between the gulf of Livonia and the Baltic sea, forms the northern extremity of Courland. The cape, though furnished with a double light, is very dangerous to the mariners that repair to Riga.

We observe a number of islands on the north of the promontory, which might be termed from their inhabitants, the Esthonian Archipelago; some of them, however, belong politically to Livonia. The Esthonians call them the *Sarri-Ma* or country of the Islands. The climate is milder than on the continent; the sea breezes dispel the clouds, and a serene sky is not so rare a phenomenon as on the neighbouring coast. The autumns are more genial, the oak thrives, and the sheep are covered with a finer wool. *Runa*, a calcareous rock covered with a vegetable mould, is the nearest to Cape Domesnes. It is peopled by a petty tribe of Swedes or ancient Scandinavians, and their dialect is confined to the island. *Oesel*, or the Esthonian *Kurri-Saar*, the island of cranes, is next to Zealand, the largest of any in the Baltic. The calcareous strata that form its base, are in many places covered with sandstone, and the appearance of the country is diversified by forests, lakes and rivulets. The inhabitants, though rude, are not indolent; many cultivate the ground, others fish for seals or roam in quest of wrecks. The fishermen are good swimmers and divers, but by no means remarkable for their honesty. *Arensburg*, the principal town in Oesel, contains 1400 inhabitants. The island of *Dago* or *Daga*, the Esthonian *Hio-ma*, lies to the north of the latter; it abounds in wood, and although the western part is sandy, fruitful fields, rich meadows, orchards and gardens extend on the east. Some free Swedish husbandmen are settled on the island, but the Esthonians, who are more numerous, were long degraded by slavery; still, many are good mechanics and able shipwrights, watch-makers and jewellers. The island of *Worms* is peopled by a colony of Swedes, who speak a peculiar dialect.^c The total population of the Archipelago is nearly equal to 50,000 souls.

The difference in the manners and customs of the people that inhabit the three provinces, arises naturally from

^a "Pernau has a small harbour, where a hundred vessels arrive every year. Rye is the chief article of export."

^b It is called *telguwa*, by the Lettonians.

^c Grunert's Account of the islands of Oesel and Dago, a memoir in the transactions of the Economical Society of Petersburg.

the difference in their origin and condition. The light of knowledge diffused over northern Germany is imparted to the nobles, the most of whom are Germans and members of the reformed church. The aristocracy is not wealthy, but the youth are diligent, and their great merit in all the offices of public trust may be the result of their education, and the fact that superior qualification is their only claim for preferment. Those who remain at home, improve their estates, and contend against all the disadvantages of a rigorous climate. The greatest obstacles have given way to their perseverance, their lands are becoming every year more productive, hospitality reigns in their peaceful dwellings and in the ancient castles where the Teutonic knights held their disgraceful orgies. The nobles are no longer ignorant and rude warriors, but well informed and learned men. Some cultivate the fine arts, the greater number have good libraries, and, though far from the noise or amusements of towns, the nature of their pursuits is the best antidote against the evils of solitude. A German writer confesses he never heard his language spoken with such purity or harmony as by the Livonian ladies, who are at least as well educated as those in other countries. Their piety is sincere, because it is founded on gospel truth; some are perhaps tinged with enthusiasm, the failing of the understanding, not of the heart. It was a Livonian lady that first formed the idea of a holy alliance, but it ought to be observed in justice to Madam Krudener, that the name was the only part of her plan which the high contracting powers did not change. That extraordinary person fell into mysticism during the last years of her life, but her original scheme, had it been adopted, might have more effectually conciliated kings to their subjects, and subjects to their kings, disarmed revolutionary faction, and connected political with moral institutions. We learn with regret that the Moravian brethren have diffused more of cant and hypocrisy than true religion in Livonia.^a The higher classes are free from these vices, and it might be difficult to find any order of men in the civilized portion of the Russian empire, so distinguished by their virtue and knowledge as the nobles in Esthonia, Livonia and Courland.

The wars between Sweden and Russia were the cause of many calamities and changes in Riga, Revel and other towns of the same description; but the burgesses still adhere to their wise institutions, they are not less industrious, their municipal patriotism is not abated. Their habits of economy are not incompatible with urbanity or refinement, and all the useful seminaries and charitable establishments have been founded by the citizens. We are persuaded that a stranger might discover in their towns whatever is most worthy of admiration in Lubeck, Bremen or Strasburg.

The native husbandmen of Finnic and Lithuanian origin form a third class of inhabitants. The Swedish peasantry are not numerous, they are confined to a few islands, and are easily distinguished from the mass by their comparative affluence and civil liberty. The Finns and Wends, once the masters of their native soil, have been degraded by slavery for the last six hundred years. It is long since they despaired of breaking their chains, their hopes are no longer

fixed on the earth, and heaven is supposed to be the country of the free.

The Esthonians inhabit, besides the province to which they have given their name, the most of the islands, and all the northern half of Livonia. It appears from the archives of the nobles, that Esthland is the correct name of the country, but it is more commonly termed Esthonia throughout the rest of Europe.^b The natives themselves call it *Eesti-Ma*, but slaves, it is said, have no voice in such discussions. It is certain that the Estians or Estes inhabited formerly the regions to the south, and were the same as the *Æstii* of Tacitus, and the *Esti* of Jornandes; their country corresponded too with the *Estum* of the Scandinavian voyagers. These Finnic tribes settled in the north, and were at an early period exposed to the incursions of the Scandinavians, the inroads of the Lettonians, and the more durable invasions of the Germans. The Scandinavians tried to establish the worship of Thor, the Lettonians introduced their dialect, and the Germans overturned the sacred trees, stone altars and wooden idols. The Esthonian, like all the other Finns, has resisted the influence of these changes with rare success; he retains his yellow hair and all the features characteristic of his race. However indulgent the peasant girls may be to their countrymen, their conduct towards the Germans is most exemplary. If any yield to the temptation of gold, they are banished from the society of their villages. The hatred of slaves against a dominant caste is not the only barrier between the Germans and Esthonians; another and as powerful an obstacle is the language of the latter, which differs little from the other Finnic tongues. The Esthonian is divided into the dialects of Revel or Harria, Dorpat or Ungannia, and Oesel or Kure-Saar. The national and popular songs are written after the Finnic style, in other words, alliteration and metre are equally essential.^c Many of the ballads have been collected by the ingenious Herder; they illustrate the simplicity of a rude people, and the gloom and misery inseparable from slavery. The harmony of the language consists in sonorous and well-combined vowels, but it is fettered by a plaintive and drawling prosody, imitating perhaps the accents of oppression. The Esthonians are not insensible to the charms of music. While one of their bands, say the chroniclers, invested a strong castle in the thirteenth century, a monk played the harp from a rampart, and the besiegers withdrew from the siege.^d Several ancient customs might be mentioned, but it is difficult to distinguish such as are of native origin from others introduced by the conquerors. The god *Tara-Pyha* has been compared to the Thor of the Scandinavians, yet the former divinity was represented under the form of a bird, which appeared in a sacred wood on mount *Thorapilla* or *Tara-Pyha* in the ancient province of *Wirria*, and flew sometimes to the great sanctuary in the island of Chori or Oesel. It is not easy to reconcile that fact with the supposition of a Scandinavian mythology. The most distant nations, the *Greeks* and the *Spaniards*, says Adam of Bremen, consulted the oracle in the island of *Chori*.^e The Scandinavians would have also gone thither, had Thor been the god of the sanctuary. Although Thursday was consecrated

^a De Bray, III. p. 117.

^b "It is difficult to settle the orthography of their name. From the analogy of their language it should be written *Eest*, and pronounced *Ehst*. If it was simply written *Est*, the natives would pronounce it *Escht*, and *Ehst*, if written *Ehst*. In the records of the nobility, the official orthography for the name of the country is *Esthland*, from which is derived

the Latin form, *Esthonia*. The Esthonians themselves call their country *Eesti-Ma*, and the Lettonians call it *Iggaua-Semme*."—M.B.

^c "Their popular songs are versified after the manner of the Finns, or by metre and alliteration." See p. 515.

^d Merkel, die Vorzeit Lieflands, I. p. 248.

^e Adamus Bremensis, c. cccxiii.

to Thor and Thara, it is by no means a proof of their identity.^a *Jumala* was the generic name of the beneficent divinities, and *Weles* was applied exclusively to the wicked principle and its emanations. The evil spirits were also called *Raggana*, but the characteristic of the Esthonian worship consisted in the adoration of rivers, mountains, high trees, plants and animals.^b Their superstition was not wholly destroyed after the establishment of Christianity. Idolatrous worship was rendered in the last century to *Wohhanda*, a rivulet of which the fresh and limpid source was encompassed with a sacred hedge; no sacrilegious hand dared to trouble its water, and the axe never approached the trees that obscured it with their shade. This brook, after it was enlarged by some others, was called the *Paha-toggi* or sacred water, and to obstruct or alter its course was to invoke on the land all the scourges of the divine wrath. A nobleman erected a mill on the river, but an insurrection was the consequence, the profane building was levelled with the ground, and the revolt was with difficulty repressed by a strong military force. The Catholic traditions are blended with the obscure recollections of paganism. When the festival of St. John is held, it is accompanied with dancing and rural mirth. The peasants meet round the ruins of chapels consecrated to the saint, and it is not uncommon to see some engaged in prayer or in the dance, while others are feasting or offering sacrifices.^c Gifts are still deposited in the darkness of the night on consecrated stones, and the peasantry, though admonished by their pastors, carry food and a few dried sticks to the graves of their relatives.^d

The celebrated Herder, who lived in the country, and collected many popular songs, relates the following anecdote on the power of superstition. A young village girl dreamed she was transported to *Jabmen-Aimo*, or the country of the dead, where she met the souls of her parents, and desired eagerly to remain with them forever. One of the souls advised her to retire into the recesses of a forest, to abstain from nourishment, and to rest against a tree; in this way her wish would soon be gratified, and she herself might live always with her parents. The dream did not end with her sleep, and the impression was strengthened by many visions that appeared to her in the solitary places to which she led her flock. Her friends were informed of these unearthly visions, and of her intention to obey the repeated advices given by the souls. It was judged necessary to confine her, but she made her escape, and was not found during some days. When at last discovered, she was resting against a tree, her head was sunk on her breast, her arms were immovable, and her eyes closed. Still life was not wholly extinct, and it was preserved for a season by the kindness of her relatives. Having recovered the power of speech, she deceived her guardians, fled anew, and concealed herself in the least accessible part of the forest. Her brother, after a long and fruitless search, observed her in the position enjoined by the shades, but her wishes were by that time fulfilled, she was then an inmate of the other world.

We might enumerate among the holy places, the ancient citadel of *Oden-Pah*, or the *sanctuary of the bear*, the river of Embach or *Emma-toggi*, the *mother of waters*, and a num-

ber of lakes, springs, hills and caverns. The Egg Mountain, near Oden-Pah, is still venerated, and the weather is often predicted by the mists that rise from a spring on its eastern declivity.

Many curious monuments raised before the introduction of Christianity still remain, but it is not likely that they were erected by the Esthonians. Such are the ancient strong castles where the people met to defend themselves against the Teutonic Knights. That of Warbola has been fully described by a Livonian writer; it consists of a very large rampart formed by masses of granite laid above each other without lime or any other kind of cement. The two entrances bear the marks of modern workmanship, but the enclosure forms an irregular oval of 800 paces in circumference, and from 200 to 250 in diameter. The thickness of the walls may be about 30 or 36 feet, and they are higher or lower in some places than in others, according to the elevation of the ground.^e That fortified post is not far from the sea, and others similar to it are situated in the island of Oesel, but none have hitherto been discovered on the eastern frontier towards Russia, or on the southern towards the Lettonians. Thus it is not improbable from their position, that they were the works of the Scandinavians. The Swedish and Danish expeditions in the heroic ages might have been preceded by many other invasions in the fabulous times, and the Goths might have settled on these shores before they entered Scandinavia. It appears certain from what is known of the Lettonians, the neighbours and enemies of the Esthonians, that the latter could not have erected such works. The fortifications raised in the 12th century by the Lettonians were wholly composed of earth, and so ignorant were they of more solid buildings, that they attempted to pull down with ropes a castle founded by the Teutonic Knights. It has been supposed that the ancient monuments in these countries served as forts to the sovereigns of *Polotzk*, a kingdom peopled by Goths and Slavonians, which was called *Paltescia* by the writers in the middle ages. If a line of similar ruins were traced along the Duna, the hypothesis might be confirmed. The *Cyclopean* walls in Livonia are well deserving the attention of antiquaries, but the want of information prevents us from arriving at any conclusion concerning their origin.

"The two *kangers*," says a writer of the country, "are immense dikes raised by the Lives to form a communication between fertile districts separated by marshes and lakes."^f M. de Bray, who examined the large *kanger*, gives a different and more correct account of it. "It is not an artificial but a natural road of more than ten miles in length. As its distance is so great, it may be readily admitted by those acquainted with the country, that it does not form a straight line.^g It is a mass of sand and pebbles, and also of calcareous and granitic rocks, which rises in some places to the height of sixty feet above the marshes that limit it on each side. The road extends on the summit or narrowest part of that singular elevation, which becomes gradually broader, and the base varies from twelve to twenty feet in breadth.^h The two sides are covered with the *Pinus abies* and *sylvestris*, the *Populus tremula* and the *Rubus saxatilis*. It is absurd to attribute such works to human efforts; had the

^a "— it is the most plausible argument for their identity."

^b Bull of Innocent the Third in the year 1199. See Gruber, Orig. Livon. p. 205.

^c Merkel, Vorzeit Lieflands, I. 174.

^d Petri, Livonia and Esthonia, I. 479. (in German.)

^e Memoir by Count Mellin in *Hupel's Nordische Miscellaneen*, Number 17.

^f "They vary from 3 to 5 toises in height."

^g Boerger, Versuch über die Alterthümer Lieflands p. 78.

^h "This pretended dike is more than three leagues in length. It does not form a straight line."

ⁱ "Its base is often more than 15 feet in breadth."

Lives wished to open a communication across the marshes, a road not more than two feet above their surface might have answered the purpose; indeed many of that description have been made in Livonia. It was unnecessary to raise a hill, or to prolong the distance by useless windings. The kangars are not the works of the Lives but of nature, who in one of her capricious moods formed those long and narrow masses of sand and pebbles, which extend to some distance beyond the marshes in the direction of *Sunzel*. It is a dismal and dreary view from both sides of the great kanger; the sterile and desert fens below it reach to the utmost verge of the horizon. Other dikes of the same kind have been observed in different parts of Livonia and Esthonia. A similar and very lofty *kanger* is situated on the estate of *Jendel*, which belongs to the provincial judge Von Löwenstern; many fine walks have been cut on the summit by the proprietor, and they are encompassed with woods, meadows and lakes.^a It may be added in confirmation of M. de Bray's opinion, that we have lately seen a Swedish traveller, who observed more than twenty of these natural dikes throughout the central plateau of Carelia, Savolax and Tavastland; they were composed of the same rocks, and although used as roads, some parts of the summits were hardly broad enough for a man to pass on horseback.

The people in the island of Oesel have calendars, which serve every ordinary purpose, and the divisions and marks are the same as those on the Runic staves of the Scandinavians.^b

The Esthonians are strong and active, but rarely above the middle size; though cheerful and patient, they are degraded by the vices inherent in slavery; still the dignity of their nature is not wholly lost; they submit reluctantly to insults and arbitrary punishments. Their tendency to revolt and to avenge their wrongs is in their present condition a proof of magnanimity and virtue.^c The good qualities of the people are now appearing, the laws are milder, their masters less rigid, useful institutions more common, and the system of education greatly improved.

The Lettonians, like the Kures and the Semigallians, formed a part of the *Wendo-Lithuanian* race, which has been sometimes confounded with the Finno-Hunnic race, but their language, dialects, religion and superstitions were very different. These differences shall be fully considered in another section, and we shall give at present some account of the moral and civil condition of this people, who now inhabit southern Livonia. "They are all," says Storch, "barbarians and slaves, and most of them struggle for the means of subsistence. Their stature is very short; many of the women might be considered dwarfs. The Lettonian peasants are not able to raise or bear so heavy weights as the Germans, but they can endure greater fatigue, and are less affected by cold, heat or moisture. They do not require so much sleep, and resist better the effects of too much or too little food. The immoderate use of ardent spirits does

not appear to be so deleterious to them as might be imagined. The Lettonian, like the Russian, uses warm baths, and passes from excessive heat to the open air. Rheumatism and other diseases of the same kind are rare in the country."

The common opinion concerning the moral inferiority of the Lettonians, their abject servility and barbarism, is in many respects incorrect. A clergy more attentive to the religious instruction of the people, more numerous schools, and above all, the civil rights conferred on the peasantry, have placed them higher in the scale of civilization. The present Courlanders are of the same origin, and they are nowise inferior to the Esthonians.

The superstitions of the country people are of a singular character. When the cuckoo is heard before breakfast for the first time in the spring, it is a bad omen, a sign of famine or poverty during the rest of the year.^d Many take the precaution of breakfasting in that season before they enter the fields, or commence their day's labour. The same danger exists, and the same precautions are used, about the time that the hoopoe arrives in the country. If a hare or a fox passes the road on which a man is travelling, some disaster is about to happen, but if a wolf crosses him, it is a sign of good fortune. If a woman or a girl be the first person that a hunter meets on leaving his cottage, it is an unlucky omen, but it may be averted. The hunter returns home, departs again, and, if the first person that meets him is a man or a boy, he prepares for the chase. Such superstitions were common in Denmark and Sweden, and the great Tycho Brahe was not wholly exempt from them. When a Lettonian means to fish in a river, he must not communicate his project to any one, otherwise he is not likely to have much amusement. But if two agree to go together, a third person may be apprized of their intention without inconvenience. If a fisherman lays his rod on the ground, and any one treads upon his line, that line is wholly useless, no more fish can afterwards be taken with it. The peasant does not permit his friend to commend his possessions, his flocks or poultry, his grain or provisions. Whatever is much praised, is likely to be destroyed, a notion that appears to have been common to the Greeks, and inculcated in the worship of Nemesis.

Other ancient traditions are not wholly unconnected with physical geography and climatology. The summers in which flies are more than usually abundant, are succeeded by plentiful harvests of buckwheat (*Polygonum fagopyrum*), and rainy summers are predicted as often as the plum tree of St. Lucia (*Prunus padus*^e) is loaded with blossoms. It is customary before a cottage is built, to examine what sort of ant is common in the neighbourhood. The common large ant (*Formica rufa*, Linn.) or the black ant is not unlucky; but if it happens to be the small red ant (*Formica rubra*, Linn.) a different site must be chosen.

^a De Bray, Essai historique, t. I. p. 77.

^b Hupel, Topograph. Nachrichten, t. IV. p. 588.

^c These remarks in the original apply rather to their past than their present state.—P.

^d Some peasants in different parts of England still consider it unlucky to hear the cuckoo before they have seen the swallow. Milton alludes to another and more poetical superstition of the same kind, in his beautiful sonnet to the nightingale:

Thy liquid notes that close the eye of day,
First heard before the shallow cuckoo's bill,

Portend success in love; O if Jove's will
Have link'd that amorous pow'r to thy soft lay,
Now timely sing, ere the rude bird of hate
Foretel my hopeless doom in some grove nigh;
As thou from year to year hast sung too late
For my relief, yet hadst no reason why:
Whether the Muse, or Love, call thee his mate,
Both them I serve, and of their train am I.

MILTON, Sonnet L

^e Bird-cherry

BOOK CIX.

EUROPE.

*Europe continued. European Russia. Fifth Section.
Central Provinces or Great Russia.*

THE southern, eastern and northern regions of European Russia have been already described, and we have observed in these widely different regions, magnificent cities and frightful solitudes, marble palaces and clay cottages, the noise and confusion of capitals, the quiet and stillness of the desert, the Tartar reposing near his Crimean vineyard, and the Laplander braving all the rigour of a polar winter. But we have only observed the Russians in the character of rulers, nay even of strangers in their own dominions. The countries which we have now to mention are really Russian, the nation is collected in the central provinces, that nucleus of the empire, where the traveller may hear the language, and observe the manners and customs of Russia. Central Russia comprehends the governments of *Novgorod, Tver, Pleskow, Polotzk or Vitepsk and Smolensk* round the table land of Waldai, *Iaroslavl, Vladimir, Kostroma and Nischnei-Nowgorod* on the *Wo'ga, Moscow, Kulugi, Tula, Orel, R'asan, Tambof and Penza*, or the countries from which the *Oka, the Don and the Desna* take their rise, and lastly, the governments of *Kursk and Woronesch (Voroneje)*, which join the plains of the Ukraine. The superficies of the whole territory is not less than 50,720 square leagues, and the population is equal to twenty-four millions. The four governments of Little Russia shall be examined in another section; their climate is milder, and they are inhabited by nations of a different origin.

The central region is formed by a lofty plain rising above other plains, in the direction of the Baltic, Poland and the Black and Caspian Seas. The Wolgaic chain in the government of Saratof, the falls of the Dniester, the heights of Smolensko, and the hills of Waldai, determine its elevation in the four directions which we have mentioned. It must not, however, be imagined that geographers are in possession of sufficient materials to enable them to trace the limits of the table-land, or to ascertain its highest points. The heights in the forest of *Volchonski*^a near the sources of the *Wolga* and the *Duna*, between *Ostasebkof* and *Toropez*, are supposed to be about 1300 feet above the level of the sea, but no part of it is very acclivous or rugged; on the contrary, it is a gently sloping plain, which may probably account for the name of *Visokaia Plotska*, that

has been given it by the natives.^b But the rivers and lakes are encompassed by lofty and steep banks of slate, gypsum and shell limestone. Masses and blocks of granite are scattered on the surface; different geologists consider them the monuments of a deluge, or the boundaries of an ancient sea, or rocks once enclosed in floating ice, and transported by the ocean to their present position. The last hypothesis, however ingenious, is not very probable, and we believe that they were formed, like all other rocks, in the place which they occupy.^c The high country between the *Duna* and the *Dniester* is composed of the same substances. But calcareous hills appear in the direction of *Orel*; small and ill defined chains extend towards the sources of the *Oka, the Don, the Sura and the Choper* and are confounded near *Samarskoi-Lug* with the line of hills on the *Wolga*. Banks of chalk rise like islands at some distance to the south, and terminate in steep promontories from two to three hundred feet in height. The same substance predominates in some of the plains in the Ukraine, and in the government of *Voronez*. Beds of flint are scattered in limestone mixed with shells, and granite rises through all the rocks in the south; but it cannot be affirmed that it forms part of a low chain, which might serve to fix the limits of the table-land towards the basin of the Black Sea. We are also unable, from want of sufficient information, to give a correct account of the country to the north of *Volchonski*. Granite is observed on the calcareous hills of Waldai, but none of them are higher than 350 feet, and the basin of the *Ladoga* is separated from the *Wolga* by these low heights. A loftier table-land is situated in the country on the north-east, near the lakes of *Bielo-Osero* and *Kubenskoj*; its elevation, according to recent and hitherto unpublished observations, is in some places upwards of 1000 feet. This elevated plain terminates at the base of the *Ural*, from which, as we have already seen, the *Kama* and *Wiatka* take their source. The greater part of this plain on the north of *Iaroslavl*, is covered with marshes, and is not very different both in height and in the nature of the soil from the plains in the governments of *Moscow* and *Wladimir*, or from those in *Kaluga* and *Tula*. That part of the valley of the *Wolga*, which separates the two table-lands, is about three or four hundred feet above the Caspian. The *Oka* or principal river in the government of *Moscow*,^d passes through no steep de-

^a It is the *Volchonskoi-Bor* of Nestor, and the Russian authors* suppose it the *Alaunus Mons* of Ptolemy.

* "Russes-Allemands," German authors who have written on Russia, such as Pallas, Müller, Georgi, Storch, &c.—P.

^b *Visokaia Plotska* signifies a high plain. It is also called *Wolgskoi Werschina*, heights of the *Wolga*.

^c This opinion of the author would certainly be considered very improba-

ble by most geologists, as much so as the belief that the various organic remains were created along with the rocks in which they are found. We believe it is generally agreed that these masses of granite were transported by some cause or other, either by a deluge, or in blocks of ice by the currents of an ancient ocean.—P.

^d "The principal river in the table-land of Moscow."

clivity in any part of its long course; even in Riäsan, where it winds between fruitful and pleasant hills, its tranquil streams water low vallies. But the land on the right of the Oka beyond Murom rises visibly, a fact which might be otherwise proved by the rapid course of the Telscha. That high country is situated on the south of Nischnei-Novgorod, and the west of Simbirsk; it is bounded on the northeast, the east and the southeast by the great eastern bend of the Wolga. The ridge of hills, which is generally, but incorrectly called the *Wolgaic chain*, is only a comparatively steep part of the table-land,^a formed by strata of calcareous slate, gypsum, alabaster, clay and sandy marl. The highest of these hills are not more than 300 feet above the Wolga. The slow-moving *Sura* and the almost stagnant course of the *Zna* in Tambof, prove that the country is low near their source. Such is all the information which we have been able to collect concerning the boundaries and configuration of central Russia.

The climate of these plains may be divided into four zones. First, the governments of Novgorod, Tver, Pleskow, Vitepsk and Smolensk are, from the elevation of their soil, exposed to a much more rigorous climate than the Livonian provinces. The rivers are generally frozen from the 20th of November to the 1st of April. The winter of 1812, which accelerated the destruction of the French army, already weakened by want of food and by murderous contests, was not more than usually severe. Secondly, the governments of Iaroslavl, Vladimir, Kostroma and Nischnei-Novgorod are, on account of their lower level, more temperate, although they are partly situated in the same latitude as the five governments in the Wolchonskian table-land; still the difference consists more in the greater heat of summer than in the shorter duration of winter. The rivers are as long frozen, the autumns and springs are more humid and variable. The country may be better adapted for the cultivation of hemp and flax, but it is not perhaps so healthy. Thirdly, the great central mass of the table-land, which includes the governments of Moscow, Kaluga, the northern part of Orel, Riäsan, Tambof and Penza, is still milder, though more variable and moist than the two preceding zones. A temperature below 16 or 20 of Fahrenheit is a rare phenomenon at Moscow;^b excessive heat is not so common, and the winters, like those at Petersburg, are occasionally interrupted by storms or impetuous winds, that last sometimes fifteen days. Still the thermometer, on an average of the whole year, descends almost as many days below the freezing point, as it rises above it.^c The season in which the ice on the rivers begins to melt, proves the progression of cold towards the east. Thus the climate of Riäsan, Penza and Tambof, is not so mild as might have been expected from the latitude. Lastly, the temperature is much more genial in the southern part of Orel and in the governments of Kursk and Voronez. The summers are less variable, and the springs earlier. But even these provinces on the fiftieth parallel, are for a short time exposed to the cold winters of Moscow, and the open plains afford a free passage to the frozen winds from the Uralian mountains. The plants in Kursk and Voronez are different; coniferous trees become less

common, and the tapering summits of the pine give place to the wide-spreading branches of the oak. The herbage is more nutritive, the meadows are enamelled with flowers, and the cattle are larger and stronger.

It appears from the researches of different statistical writers, that pines, firs and other trees of the same sort are most numerous beyond the fifty-seventh parallel; the birch and the *Populus tremula* prevail beyond 54° or 56°; the lime forms extensive forests as high as those latitudes; the oak is thinly scattered on the central table-land, and although it thrives best about 51° or 52°, many are large and lofty in the valley of the Wolga near the 55th degree. The Russian, like the Canadian oak, is not remarkable for its solidity; the other trees in the same forests in which the oak prospers, are the *Acer Tataricum* or Russian maple, the white poplar and hornbeam. The beech, though not rare in Livonia, is seldom seen in Smolensko, and does not succeed beyond the plains of Little Russia. The climate of the central table-land is too cold for the chestnut and walnut.^d

Many naval yards are supplied with timber from the forests in the northwest of central Russia; but lofty firs and larches are less common beyond that region; the woods to the south of Moscow, particularly in Kursk and Orel, are not so extensive, and in some places they are already exhausted. Besides the trees that are cut for building and fire wood, the peasants obtain turpentine, tar and lampblack from the pines and firs. The bark of the birch is used in tanning, and made into round boxes, in which caviar, fruits and butter are preserved. The leaves of the same tree afford a yellow dye, and the sap which exudes from it in spring is changed into a slightly acid and agreeable beverage. The lime is used to greater advantage in Russia than in any other countries; its bark supplies sufficient materials for baskets, trunks and the roofs of houses, and the tender bark of the young lime is plaited into shoes, which are worn by the peasantry. The wood is burnt for potashes, or used in building boats, and swarms of bees extract honey from the flowers.

Winter rye, early barley and oats are more generally cultivated on the high plains than other kinds of grain. Wheat is exposed to vernal frosts, and sometimes blasted by mildew. The *Ledianka* is the only variety of wheat that is suited for the country. The common manner of burning the forests in Finland, is not unknown on the frontiers of Moscow, and no better proof need be adduced of the poverty of the soil and the severity of the climate. The ordinary plough is seldom used in the south from want of oxen; a lighter instrument is substituted, which only grazes the land, and is easily drawn by a single horse. The peasants are indolent, and agriculture is neglected in Great Russia; indeed slaves are never eager to labour for the exclusive profit of their masters. The Russian method of drying wheat has been adopted in northern countries. Wooden huts are built, poles are placed across them, and apertures, which may be shut as occasion requires, are made in their sides. A large stove is erected in the immediate vicinity, and tubes pass from it to the building.^e The sheaves are suspended on the poles, a slow fire burns in the stove,

^a "The *escarpment* (eastern declivity) of the table-land."

^b This is a great error in the translator. In the original, "30° and even 27° of cold is a rare phenomenon," &c. If the scale be Reaumur's, as is probable, this will correspond to —35° and —29° Fahr. nearly.—P.

^c Reaumur's thermometer was 155 days below zero in 1790, and 177 days in the following year.

^d Georgi, Description de la Russie, partie botanique.

^e It is merely stated in the original, that the chimney or vent of the stove opens into the building.

and the smoke, and the vapour from the moist grain, escape by the openings. The form of these buildings varies in different provinces, but the custom is general, and not without many advantages. Although the grain is thus rendered smaller, it is effectually preserved against the ravages of the weevil, and retains its nutritive qualities a longer time. The culture of hemp is more productive and better understood than any other in central Russia.

Apples and different kinds of fruit are imported into the capitals and large towns, but such importation is not required in these provinces. The German writers suppose erroneously that the orchards are of little value, and ill cultivated by the inhabitants. It is true that the former have become more important, and the latter more industrious within the last thirty years. The different species of apples, which grow in central Russia, were brought from Astrakan, Persia and Kabardia. The European kinds are rare. The apple of *Krevsk*, though very large, is agreeable to the taste; some of them weigh more than four pounds. The transparent apple thrives in the governments of Vladimir and Moscow; it is said to have been imported from China, but many consider it indigenous to the Crimea; it is so permeable to light that the seeds are seen through it. A great quantity of fruit is raised in the governments of Kaluga and Riazan, and the making of cider, and the sale of apples, forms an important branch of industry. Annual fairs are held in the towns of Kaluga and Simbirsk, from which the fruits are exported to the southern provinces. But this abundance is merely local, for apples and pears are every year imported by the Baltic into the northern provinces. The quantity sent in 1794 to Petersburg only, was sold for more than 122,000 roubles. The woods of wild apple trees hardly extend beyond the forty-ninth parallel; consequently the extensive orchards on the banks of the middle Wolga and Oka, must have been raised by the inhabitants. As European sorts, which are common in Little Russia, are not cultivated, it could not have been the Great Russians, during their migration from southwest to northeast, but the Finns or rather the Tartars, whose descendants are now confounded with the other inhabitants, that transplanted the fruits of Asia in these countries. The cherry and plum tree grow spontaneously as far as the 55th parallel. Whole forests of the first are scattered through the government of Voronez, and its culture in some places of central Russia, particularly in Vladimir, is the only means by which many gain a subsistence. The fruit, however, has not been much improved by cultivation; there are not more than two or three species, and these are little larger than wild cherries. Horticulture is generally neglected, but cabbage thrives throughout the provinces, and asparagus in the neighbourhood of Moscow. It is not a little extraordinary that the gardeners of Rostow in the government of Iaroslavl, are perhaps superior to any in Europe; although unaided by the lights of science, and without resources, contending against a rigorous climate, they supply Petersburg and Moscow with all kinds of early vegetables. It is probable that they are the descendants of a foreign colony; the real Russian gives himself little trouble about such pursuits.

The animal, like the vegetable kingdom in central Rus-

^a A sum nearly equal to 25,417*l*.

^b "Avant de naître," before they are born. This is practised among the Kirghis and other tribes of Central Asia. "The delicately waved lambskins are procured by the cruel practice of opening the womb of the mother." Pinkerton.—P.

sia, is not of a distinct character. The rein deer and the camel, though not found within the region, approach its utmost limits on the north and the south. The other quadrupeds in the neighbouring countries exist in the different governments. The bear, the wolf, the glutton, the squirrel, the hare and the roebuck are the most numerous species in the forests. The fallow deer does not exist in the country, or at all events, is very rare. The elk agrees with the climate, but it avoids the hunter, and seeks safety in the most inaccessible forests. The urus has disappeared, and the stag has decreased in number. The *Scorex moschatus*, the *Mus decumanus*, the Russian marmot and the *Mus cricetus* abound in the barren plains on the east of Voronez and the Oka. The domestic animals are for the most part of an inferior kind; the ox is thin and bony, the sheep is covered with a coarse wool, but a fine fur is obtained from the lamb, and many of these animals are killed for the sake of their skin, when not more than one or two days old.^b We have already spoken of the hardy patience of the Finnic, and the swiftness of the Cossack horse; these good qualities are united in a less degree in the Russian horses. It is astonishing how much the Russian horses resemble each other, notwithstanding the difference of climate, food and keeping. They may be known by their prominent heads, large shoulders^c and broad chests; the rest of the body is well enough proportioned. They can support long journeys, but many are timid and not easily broken.

The government of Novgorod may, from its cold and sterility, be compared to Ingria; its extensive deserts on the north-east, join those of Wologda and Olonetz. Winter begins fifteen days earlier at Bielo-Osero and Kyrilow than at Petersburg, and even the country near the town of Novgorod, is neither fruitful nor well cultivated. More rye, hemp and flax are raised than what is consumed by the people, but the fisheries, and the forests, which make up a fifth part of the whole territory, are the principal resources of nearly 900,000 inhabitants.^d The town of Novgorod *Weliki* or Great Novgorod, covers a large extent of land on both banks of the Wolchowa. The part on the left of the river, is called the *quarter of St. Sophia* from the principal church, which, together with the archbishop's palace and the barracks, is situated within the *kremlin*^e or citadel, and surrounded by a few old and detached houses. The other part on the right of the river, is the residence of the merchants and retail traders. Both quarters are united by a bridge, and they contain 1540 houses, 63 churches, (some of which are built in the suburbs),^f and about 10,000 inhabitants. Novgorod was a rich and powerful republic in the twelfth and thirteenth centuries; its dominions extended to the White Sea and the Obi, and it disputed the possession of Finland with the Swedes. The date of its origin is very ancient, the people of the north repaired to it in the first ages of the vulgar era, and the Russian historians assure us that it was a flourishing town long before the entrance of the Slavonians into the country. It was inhabited so early as the ninth century by princes tributary to the grand-dukes of Russia. The first bishop was appointed in 998, and a revolution, a proof at least of some degree of civilization, took place in 1135. The monarchy then became elective, and a mixed form of government was introduced. The

^c "Encolure longue et seche," long and thin neck.

^d A ninth part of them are *Ischores*, a tribe of Finns.

^e "Kreml."

^f "Some of which are beyond the present limits of the town."

Hanseatic towns established there, in 1276, one of their four great factories, and the whole commerce of Russia was concentrated in Novgorod. According to some authors, its population amounted at that time to 400,000 souls; it is uncertain however whether or not all the inhabitants of the adjoining district were included. The republic of Novgorod began to decline in the 15th century, and it was completely subdued by the grand duke Iwan Wasiliewitsch in 1578. Its commerce was greatly impaired after the foundation of St. Petersburg; but it still retains the carrying trade between Petersburg and Moscow. *Staraja Russa*, another town in the same government, may be mentioned, not on account of its six thousand inhabitants and its salt works, but because it is generally believed to have been, as its name indicates, the first capital and the most ancient settlement of the Varagian Russians.^a A valuable library of rare and old books is attached to the convent of *Iwerskoj-Monastyr*, which stands on an island in the lake of Waldai. The town of *Ustiushna* is built on the *Scheleso-Polie* or plain of iron, an extensive district, where a great quantity of that metal is obtained. Many of the people in *KyriLOW* and *Bielo-Osersk* gain a subsistence by painting the images of the saints.

The two governments of *Pleskow* or *Pskow* and *Witepsk*, are nowise different in their physical geography, and the interior of both is formed by the northern, western and southern declivities of the table-land of *Wolchonski*. The elevation of the soil in the neighbourhood of *Weliki-Luki* and *Opotscha*, varies from seven to eight hundred feet. Granite rocks are thickly scattered over it, and the *Salmo eperlanus* abounds in the numerous lakes. We descend from these lofty plains towards the *Duna*, in a south-west direction, and towards the large lake of *Peipus*, by gentle declivities. The low country is sandy and marshy, and not composed, like the heights, of clay and shell limestone. The marshes are covered with ferns and mezeleon,^b the sky is often obscured by mists, and the greater part of the land is sterile. But the inhabitants are not numerous, and a considerable quantity of rye and other grain is annually exported. Hemp and flax are the crops which succeed best; the oak and the apple tree are seldom seen, but the *Prunus padus* is by no means rare. The scenery, though bleak and wild, is not destitute of beauty. The water in the lakes is limpid, and the bottom may be easily seen; the flying squirrel haunts and enlivens the woods. Beams, planks and masts, the produce of the forests, are sent in great numbers to different parts of the empire. The *Welikaia Reka* or great river flows rapidly towards the lake of *Pleskow*, which forms a part of the *Peipus*. The *Lowat* descends to the lake *Ilmen*, and is confined in its passage by projecting rocks. The name of the *Toropa*, the outlet of many lakes, ought perhaps to be extended to the *Duna*. The same term enables us to account for the ancient name of *Turuntus*. It might be worth while to compare the high plains of *Pskow* and *Polotzk* with others in the interior of eastern Prussia; both are of the same elevation, at the same distance from the Baltic, and equally important in their relation to geology and physical geography.

The population is of a very mixed character; the peasants to the west of the *Welikaia*, particularly in Polish Livonia, are of Lettonian origin, and the nobles are mostly Germans and Poles. All the inhabitants in the greater part of *Pskow* are Russians, but they are more indolent and less sprightly than the rest of their countrymen. There are besides some Finno-Ingrian, Esthonian and Livonian-German colonists. The banks of the *Duna*, in the greater part of *Witepsk* and *Mohilew*, are peopled by a particular race, the *Rusniacs*, or the *Bielo* or *White* Russians. Their dialect is very ancient, and intermediate between the great Russian and the Polish, but it is more harmonious than either. It is still spoken in *Mohilew*, and extends over the whole of *White Russia*. Although of Slavonic origin, and not mixed with modern tongues, is cannot be determined whether or not it was used in the middle ages by the *Kriwitzes*, or the *Kriwetans* of *Constantine Porphyrogenitus*, or whether that tribe was composed of Slavonians proper, or of Lithuanians or Finns. The *Rusniacs* make up the population of the rural districts, and are divided into three classes. The *Zemianins* or possessors of the country, who call themselves *Szlachnics* or persons of family, are exempt from statute labour,^c but are obliged to pay a capitation tax of fourteen roubles to the Polish lords. The *Gloschokunischnics* are hired labourers, and the *Prigonoj* are attached to the soil.^d

We remark in the government of *Witepsk*, as we advance from north to south, the town of *Dunaburg*, once the metropolis of Polish Livonia, and *Polotzk*, a place of 3000 inhabitants, the ancient capital of a small Scandinavian kingdom, and afterwards, from the tenth to the thirteenth century, of a Russian grand-dutchy founded by *Isaslaw* the son of *Wladimir the Great*. *Witepsk* contains at present a population of 15,000, and carries on an active trade with *Riga*. The houses are antiquated and ill built, the streets are narrow, and the old walls are decorated with towers. Many Jews are settled there and in the other towns in the same government; they amass wealth by usury, the inhabitants of every rank are dependant on them, and none more so than the light and frivolous Poles. The government of *Pleskow* being an ancient Russian province, it is not exposed to the last evil, but it has often been the theatre of destructive wars. The town of the same name is built on the *Welikaia*, and divided into three divisions, each of which is surrounded by a brick wall. Although the inhabitants do not exceed ten thousand, there are not fewer than sixty churches built of stone. *Pleskow* was united with the Hanseatic towns, and the people retained their independence until the year 1509. It possessed an extensive commerce, which is much diminished; it now consists of tallow, leather, tar, hemp and flax; the latter is sold at a high price, on account of its fineness. *Weliki-Luki*, which is noted for its good leather,^e was long one of the frontier towns in Russia. *Toropetz* is the most populous and commercial town in the government; it is situated on the *Toropa*, the population amounts to 12,000, and the produce of the country is exported from it by the *Duna*. The church of the monks in the convent of *Petschora*, and its

^a "Russes-Warègues." The Varagians were a piratical nation of Scandinavian origin, who dwelt on the coasts of the Baltic. According to the Russian historians, they completely subjected the Slavi, about the year 860, under their leader Rurik, who established the seat of his government, near the *Wolchowa*, at a place called *Old Ladoga*. He is considered as the founder of the Russian monarchy.—P.

^b "Garou," a general name for species of the genus *Daphne*, Linn.

^c "Corvées," compulsory labour rendered by the vassal to his lord.—P.

^d "The *Gloschokunischnics* are peasants attached to the soil, and the *Prigonoj* are entirely the slaves of their masters"—corresponding to the two classes of *villains* in the old English law, viz. *villains regardant*, or attached to the soil, and *villains in gross*, or attached to the person of the lord.—P.

^e "Russia leather."

long subterranean alleys are cut in a sandstone rock. The small town of *Izbarsk* on the banks of a lake, was in the ninth century the residence of Varagian princes.^a

The government of Smolensko, on the other side of the Duna, is not less elevated, but not so humid or marshy. The winters are long and severe, still a luxuriant vegetation is expanded by the great heat of summer. The forests abound in lofty trees; large masts are sent to Riga, timber and fire wood to Kiew. Although the peasants are slaves, their lords are wealthy, and hemp, flax, wax, tallow, horses, oxen and swine are the produce of their estates. The peasantry weave their own cloth and linen, and they make carpets, which are prized in many parts of the empire. The ploughs used in the country, are drawn by oxen, and are heavier than those in the other governments. The villages, though built after the Russian manner, are cheerful, and many of the cottages are shaded with trees.^b The province of Smolensko has been the ordinary route by which invaders have passed from Poland, and entered Russia. Charles the Twelfth chose a different route; the campaign was disastrous to the Swedes, but his plans were wisely devised. The town of Smolensko was an ancient bulwark of the empire, and the common people consider it, as well as Moscow, a sacred or holy place. The town is built in the form of an amphitheatre; it was speedily rebuilt after its destruction in 1812, and before that period it contained 12,000 inhabitants, its linen and silk manufactories were flourishing, and many persons from different parts of the empire, repaired to its great annual fair.^c The greater part of *Dorogobusch* is built of stone, and its population amounts to 4000. *Wiaisma*,^d though built of wood, possesses a considerable trade, and is peopled by 12,000 inhabitants. Grain, flax, hemp, wax and honey are exported from its *pristan* or harbour^e to Petersburg by the feeders of the Wolga. *Poretchie*, a place of 6000 inhabitants, carries on a trade between Smolensko and Riga by the *Kaspla*, which falls into the Duna.

The Wolga rises in the government of Tver, and when it issues from its natal marsh, it is not more than two feet in breadth. The western part of the government is high, cold and in many places unfruitful, but it is covered with lofty forests. The eastern part is lower, the climate is more temperate, and the canals which connect the navigation of the Wolga and the Neva, contribute greatly to the commercial wealth of the people. The town of Tver is well built; the streets are broad, and the squares are large; one of them is adorned with an obelisk in honour of Catherine the Second. The place contains 20,000 inhabitants, and its prosperity depends on its position, which is favourable for commerce. A hundred boats often sail from it in the same day, and pass from the Wolga into the canal of *Wischney-Wolotschek*.^f The town of the last name is enlivened by the numerous boats which ascend and descend the canal. The cheerful town of *Torjok* is situated between the two last, and participates in their trade. The manufacture of morocco leather is a lucrative branch of industry, and the population of *Torjok* is at present about 15,000 souls. *Ostaschkow*, which lies towards the west, is the metropolis of a district, where the atmosphere is impregnated with disagreeable exhalations that rise from lakes and marshes. The inhabitant: earn a livelihood by building boats. *Rjew-Wladimirov* con-

tains 7000 souls, and the boatmen and the other people who subsist by navigation, repair to it. The towns on the east are insignificant, but the inhabitants of *Kaschin* export their red pigment, and the people in *Bejetsk*, their agricultural instruments. The rural population consists for the most part of Carelian Finns.

The government of Moscow is considered the nucleus of the empire; the inhabitants are more industrious than those in any other Russian province, it is also more populous and better cultivated. The argillaceous and sandy soil is not very fertile, and many parts are covered with heaths or marshes. The northern and eastern districts are well provided with wood; the others are cultivated, and produce rye, barley and summer wheat; still the grain raised, and the cattle reared in the whole government, are inadequate to the wants of the inhabitants. The corn harvest in 1802 amounted to 2,570,000 tshetverts, but it was necessary, in addition to that quantity, to purchase and import 1,120,000. The asparagus, plums and apples of the province, are said to be of as good a quality as any in Russia.

Manufacturing industry is diffused from the capital to the villages, and divided into many branches. Tallow, cloth, silk, calico, sailcloth, table linen, hats, Russia and Morocco leather, paper, stoneware, porcelain, cutlery and many other articles are exported from the province. The inland trade of the capital is very great, less subject to fluctuation, and of a more national sort than that of Petersburg. The merchants are connected with the different houses throughout the vast empire from Moscow to Kiakhta; they have their agents in Pekin, London, Samarcand and Hamburg.

This famous city, which was burnt and levelled with the ground by its patriotic inhabitants, has now risen from its ashes with greater splendour, and without having lost its original character. Moscow, or as it is more correctly styled *Moskwa*, is situated on a river of the same name at the base of the heights, which are called the *Sparrow hills*. The czars are still crowned in the ancient capital of the empire, and Moscow is still the residence of the oldest families and the wealthiest nobles. It is the seat of an university, several learned societies, and a section of the senate and of the holy synod. As to superficial extent, it is, after Constantinople, the largest town in Europe, for its circumference is not less than five German miles or thirty-four versts.^g Its great extent must not be attributed to its population, but to the manner in which it is built. The houses are of a single story, many are mere cottages, there are some palaces with very large gardens, and a great space is covered with churches and chapels. Each church has several cupolas, some of which are painted red or green, others are covered with tinned iron or gilded copper. The number of cupolas is not fewer than 1200, and most of them are surmounted by a cross or crescent.^h It is a curious spectacle to see such a confused mass of palaces, cottages and cupolas, and the best time to enter Moscow is when the morning sun darts its rays on the different groups. It is then that strangers ascend the tower of *Iwan*ⁱ to take a view of the town.

Three hundred and one churches were set apart for the Græco-Russians, two for the Lutherans, one for the Calvinists, another for the Catholics, a third for the united Greeks, and a fourth for the Armenians. Twenty-nine monasteries

^a "It was in 862 the residence of the Varagian prince *Turcor*."

^b Reinbeck, Reise, II. 230.

^c This fair was noted for the sale of horses.—M.B.

^d Viazma.

^e "From the *pristan* (port and entrepot) of *Gjat*."

^f *Vischney-Volotschek* or *Vologok*.

^g Nearly twenty-three English miles.

^h "D'une croix, avec un croissant," by a cross and a crescent.

ⁱ The name of *Iwan* is synonymous with *John*.

were inhabited by monks, and the number of houses^a amounted to 12,548, although not more than 1706 were built of brick or stone. The population in summer was equal to 250,000, and in winter to 300,000. There were in 1817, or in the fifth year after the great conflagration, 288 churches, 9148 houses, 6187 shops built of stone, and not fewer than 170,000 inhabitants.^b The population has become during the eight succeeding years, greater than it ever was at any former period. Many of the wooden houses have been replaced by stone buildings, and although the ancient confusion has not wholly disappeared, for 2600 habitations were not destroyed, still many of the streets and squares are more regular.

Moscow is divided into four quarters, the *Kremlin*^c or citadel, the *Kitaigorod*, the *Bielogorod* and the *Semlanoi-gorod*; but these divisions do not include the numerous *slobodes* or suburbs. The Kremlin is encompassed with high and thick walls, protected by battlements, and flanked with turrets. The dismal fortifications were partly destroyed by the French, and within them is situated the ancient palace of the czars, the residence of the valiant Iwan, the generous Michael Romanzow, the wise Alexis, and Peter the Great. The edifice fell into decay after the last monarch removed the court to the marshes on the Neva; but it was repaired and rendered habitable by Paul the First, who wished perhaps to make Moscow a second time, the capital of the empire. The cathedrals of the Assumption, the Archangel Michael and the Virgin, are all of them within the Kremlin. The sovereigns are consecrated, crowned, and married in the first church. Peter II. was the last of the czars who was buried in the second, and the roof of the third is almost wholly covered with gilded copper. These cathedrals were adorned with gold and silver vases, and a profusion of pearls, precious stones and other ornaments of antiquated and ordinary workmanship. A silver scone with forty-eight branches was placed in the Assumption; it weighed seventy pounds, or 2800 English pounds, and was given to the czar by the Dutch. There was another piece of workmanship, representing Moses on the top of mount Sinai; the rays and glory that emanated from Jehovah were of silver, the lawgiver and the mount were of gold. A large chamber in the palace of the czar was filled with regal crowns, ancient dresses and armour, and costly saddles and harness, in the Tartar taste. The other ten churches in the citadel are remarkable for their gildings, and still more so for the size of their bells, one of which is called *Iwan Weliki* or *John the Great*; it was cast in 1600, during the reign of Godunof, and it is perhaps the largest of any.^d Another was cast in the time of the same prince, that weighed upwards of 10,000 pounds (400,000 English pounds.) The tower in which it hung, having been reduced to ashes, the bell was melted a second time, and 2000 pounds were added to it, by order of the empress *Anna Iwanowna*, who called it by her own name. The steeple was again destroyed by fire in 1737, and since that time *Anna Iwanowna* has been buried in the ruins.^e The patriarchal library is kept in the church of the Twelve Apostles; it consists chiefly of Greek

and Slavonic manuscripts, which are now covered with dust, or consumed by moths.

The *Kitaigorod* or the *Chinese Town*, is so called because Chinese caravans used to repair to it for commercial purposes. It rises like a crescent round the half of the Kremlin, and although it was almost wholly destroyed during the invasion of the French, it is now completely rebuilt. That quarter of the city may be compared to a perpetual fair, on account of its rich bazars that are better stocked than any in Petersburg, and its numerous shops, all of which are under arcades. The public buildings in the *Kitaigorod*, are the mint, the exchange, a very large modern edifice, and the famous church of *Pokrow*,^f from which the patriarch began his triumphal entrance on an ass, that was led by the czar. Twenty other churches are inclosed within the last building, and all of them are arranged so as to admit enough of light, a proof at least of the architect's ingenuity.

The two preceding divisions are surrounded by the *Bielogorod*, or *White Town*, which is also called the town of the czar; its first name is derived from the colour of its walls. The whole quarter was nearly burnt to the ground in 1812, but it has been much improved since that time. The largest buildings are the foundry, the arsenal, the university and two gymnasia which are attached to it. The *Semlanoi-Gorod*^g encompasses the last division, and is surrounded by earthen ramparts and walls, in which were formerly thirty-four wooden and two stone gates, but the latter only remain. A hundred and three churches, the police office, the criminal courts and the foundling hospital, which is the largest and best of its kind in Europe, are situated within the *Semlanoi-Gorod*. Other edifices might be mentioned in the *slobodes* or suburbs, but the *New Palace*, the largest of them all, has not yet been rebuilt. More than a hundred bridges have been erected over the *Moskwa*, the *Neglina* and the *Jausa*; but the water in these rivers is often turbid, and hardly drinkable. An aqueduct was begun by *Catharine II.*, and spring water is now conveyed into the city. The places of amusement are the theatres, public gardens, Russian mountains made of wood and ice, clubs or casinos, concert and assembly rooms. The inns are for the most part frequented by strangers, and few of them are good. The baths on the contrary are commended, and their number exceeds 600. Such is the real capital of the Russian nation, the holy city of the Græco-Russian priests, and the new Jerusalem of their church militant.^h

Some other towns in the same government may be enumerated. *Dmitrof* contains 3000 inhabitants, many of whom are employed in different manufactories; but the people reside at great distances from one another, gardens and fields are cultivated within the walls. *Werbitz* is famed for its porcelain, which affords occupation to 200 workmen. *Kolomna* is peopled by 6000 individuals, and built on a height watered by the *Moskwa*; its trade consists chiefly in tallow and *postilla* or confects made of apples. *Serpukof* is an agreeable town on the left bank of the *Nara*, and its sail-cloth is exported to different parts of the empire. *Veraiia*, a town of 6000 souls, carries on a trade with *Moscow*.

^a "Batimens," buildings in general. "By official returns before the conflagration, the wooden houses amounted to 6591, and those of stone or brick to 2567." *Ed. Encyc.*—P.

^b "In summer."

^c "Kreml."

^d The largest of those that are suspended. It is in the tower called the *Belfry* of *St. Ivan*, and is more than 57 tons in weight.—P.

^e This bell remains in the place where it was originally cast, (in a deep pit in the midst of the Kremlin.) It never was suspended. The story of its fall is a fable. The building erected over it took fire, and the water

thrown to extinguish it, fell on the heated bell, and caused a fracture in it. *Clarke.*—P.

^f "L'eglise de la Fête de *Pokrow*."

^g Earthen Town.

^h *Reinbeck's Travels*, translated and abridged in the *Annales des Voyages*, vol. I., with a view of the Kremlin. *Richter's Sketch of Moscow* (German.) *Wichelhusen's Picture of Moscow*, (German.) *Lyall's Account of Moscow*. London, 1824.

Moshaisk^a on the Moskwa was destroyed in 1812, but it has been since rebuilt and improved.

The celebrated monastery of *Troizkaia-Laura* or the Holy Trinity, is about sixty versts to the north of Moscow. The walls are more than a verst in circumference, thirty feet in height, and eight or nine in thickness; and above them are two covered galleries or arcades, from which the view is much admired. The Poles besieged and attempted in vain to take the convent during two years. Nine churches, many buildings inhabited by the monks, large gardens, and a palace founded by Peter the Great, and enlarged by Elizabeth, are situated within the inclosure. Other five churches and a thousand houses, the property of the convent, have been built without the walls. The monastery is supposed to be the oldest in the empire;^b it was once inhabited by three hundred monks, who were the lords of 130,000 serfs or peasants.^c Their annual revenue, it is said, amounted to £50,000. But since the spoliation of the Russian clergy, as the priests term it, the number of monks has been reduced to a hundred, and their income to 20,000 roubles or £4170. A hundred peasants only are now attached to the establishment. The *New Jerusalem* or the convent of *Woskresensko* is built like the church of the Holy Sepulchre at Jerusalem, and not, as a traveller affirms, after the plan of Solomon's temple.

The government of Wladimir lies to the northeast of Moscow; its soil, climate and productions are nearly of the same nature. Gardening is well understood, but salted and pickled mushrooms are in winter the common food of the lower orders in different districts. The *Kliasma* and the *Occa*, which rolls fragments of gold and other metals, water the country, and form a communication with the Wolga. *Wladimir* or *Wolodimir*, once a very flourishing town, the residence of the grand dukes of the province, and the founders of Moscow, has fallen into decay, although its twenty-five churches and Archbishop's palace still remain. The inhabitants send cherries, cucumbers and other vegetables to Moscow, but they derive little advantage from their manufactures. The *Swungir* flows at the distance of six versts from the town, and many pebbles, false topazes and jaspers are collected on its banks. *Susdal* was the first residence of the Wladimirian dukes;^d its kremlin or citadel is now in ruins, but it retains its linen and cloth manufactories. The dialect spoken by the people is mixed with many words in an unknown tongue. *Perestawl* or *Sa-leskii*, which signifies the town beyond the woods, contains 5000 souls; its trade consists in cloth, silk and leather. The city is built on the banks of lake *Pleschtow*, where Peter the Great had two frigates, in which he studied practical navigation. *Murom* on the *Occa* was the ancient capital of the Mordwin princes; it is peopled by 7000 individuals, and exports a great quantity of soap and Russia leather. Rich mines of iron are situated at the distance of twenty-five versts from Murom, and at sixty versts from it, are large veins of alabaster, which extend to Nischnei-Novgorod. Sixteen large glasshouses and several other manufactories have been built in the district of *Duratschevo*.^e

The iron and copper works are in a flourishing state, but little improvement has been made in the agriculture of the province. One or two cows, a wretched horse, and

seven or eight sheep, make up the whole property of a peasant on a noble domain. The serfs of the crown are not so poor, but their cottages are very dirty; a cow and a calf, or a mare and foal, are often seen in the hovels inhabited by their owners. The use which is made of the Siberian centaury from Murom to Arsamias, is not generally known in other countries. The largest leaves are collected and dried; they are afterwards applied to wounds, as occasion may require; in this way, it is affirmed, a wound is more speedily cicatrized and healed than by any other method.

The lake Poganovo appears to have been formed by the sinking of the ground; floating islands are sometimes seen on it, but they only rise to the surface after tempestuous weather.^f

The northern situation of the government of Jaroslaw renders the climate colder than in the two last provinces. The soil is not of a bad quality, but the grain harvests are never abundant; flax succeeds better, and the art of gardening has been brought to greater perfection than in any other Russian government. The inhabitants of some rural districts gain a livelihood by making stockings, caps and different woollen or linen stuffs. Many individuals emigrate temporarily into other provinces, and obtain employment as gardeners or workmen.

The inhabitants of *Jaroslawl* or Jaroslaw on the Wolga, are perhaps as industrious as any in the Russian empire. The town, before the fire, in 1768, contained 6100 houses, 84 churches, and 21,000 souls; its present population amounts to 24,000, the number of houses to 2800, and there are not fewer than 63 churches, of which 44 are built of stone. The linen and silk manufactories are very flourishing, and table linen, Russia leather, linseed oil, and many other articles, are sent to Petersburg. The school of arts was founded and richly endowed by one of the celebrated family of Demidof, and it now enjoys the same privileges as the universities.

Rostow is built on a lake of the same name, where Peter the Great engaged in some skirmishes before he gained his naval victories. The exports are linen, vitriol and minium. Many strangers repair to the different fairs;^g the number of inhabitants is not less than 6000, and the town was at one time the capital of a grand dutchy. The population of *Uglitsch* on the Wolga, is equal to 7000 souls, and its commerce consists chiefly in leather, soap and paper. Iron is the staple article in the trade of *Borissoglebsk*, and the wealth of *Rybensk* depends on its tallow works and linen manufactories.

The same industry does not extend to the lofty forests in the government of *Kostroma*, where the lime grows luxuriantly on the *Wetluga*, and pines and birches cover the wilder banks of the *Unscha*. The climate becomes sensibly colder as we advance eastwards, and the population, which is greater than in some German kingdoms, is equal to 1,400,000. The habits and occupation of the country people are nearly the same as in the government of Jaroslaw, but the emigration from the province is greater, and the land of the absentees is cultivated by women and children. *Kostroma*, a town of 9000 souls, is surrounded with earthen ramparts, and the inhabitants export linen, soap and Russia

^a Mojaisk.

^b "This monastery is considered the first in the empire."

^c "106,600, according to others."

^d "It was the residence of the sovereigns before Wolodimir."

^e Geograph. Ephemerides of Weimar, XX. p. 225.

^f Lepekhin's Travels, quoted by Georgi.

^g "It has an annual fair, at which extensive business is transacted."

leather. *Makariew-Unscha* is not to be confounded with Makariew on the Wolga. *Galitsch*, on the lake of the same name, contains 6000 souls.

The government of *N. schnei* or *Lower Novgorod* is perhaps the finest province in the Russian empire. Picturesque and varied hills, regular and temperate seasons, a fertile though sandy soil, lofty forests of oaks and limes, abundant crops of corn, good cattle, plenty of fish and game, salt,^a iron and copper mines, and a position favourable for inland trade, are some of the advantages by which it is distinguished. The largest *sterlets* in the whole of Russia are taken in the *Occa*, which unites with the *Wolga* in the same province. A chain of littoral hills, called the *Balaklanova-Gora*, extends on the left of the last river. They are well wooded in some places, and in others they are cultivated to the summits, which are between five and six hundred feet^b above the level of the sea. Calcareous rocks abounding in caverns are situated in the neighbourhood of the *Piana*, and the name of the river, which signifies *Drunken*, is expressive of its irregular movements, which are probably occasioned by its streams being diverted into cavities. The lake *Tilenina* is often absorbed in an abyss, but a piece of wood, or any light body, passes through the concealed passage, and is seen again floating on the small river *Wad*. The fish in the lake *Mandewskoi*, are not easily caught in the net, and it is supposed that they escape into caverns.^c

Nisch-Gorod or *Nischnei-Novgorod*, the *Lower New town*, is thus distinguished from the ancient Novgorod, and to the name of the last is generally added the adjective *Weli-ki* or Great. Those who leave the same place for Nischnei-Novgorod, sail down the *Wolga*, and it is for that reason called the lower town. It contains 1826 houses and a population of 12,000 souls. The place is one of the great marts for the inland trade, and it is likely to retain that advantage from its central position between the north and south of European Russia, from its vicinity to the mines of *Permia*, and from its navigation on the *Wolga* and the *Occa*.^d Some of its exports are copper, iron, cordage, tallow and beer, and the three thousand barks that sail to it every year, are manned by 70,000 *burlaki* or boatmen. A great many Persians, Tartars, Bucharians and Chinese meet at the fair of *Nisch-Gorod*,^e and the value of the different articles, which are exposed to sale, is rarely less than a hundred millions of roubles. *Arsamas*, the second town in the government, is peopled by 8000 individuals; the streets are dirty, and the houses are ill built, but the inhabitants are industrious and comparatively affluent; almost all of them are soap-boilers, dyers or shoemakers. The *kraschennina* or blue stuffs which are worn by the women throughout many provinces, are for the most part dyed in the town. A great quantity of potash is likewise made, but that branch of industry is in the hands of government, and all the forests in different districts are reserved for the use of the works. Hard or old wood is always preferred to young or tender trees, and, as *Storch* observes rightly, the destruction of the forests may in a great measure be attributed to that cause. *Potschinki* is peopled by 5000 souls, and the inhabitants of *Balakna* export the salt that is obtained from the saline springs, in the vicinity. *Paulowa* on the *Occa* has the appearance of a large

village; it contains 6000 inhabitants, and almost every man in the place is a smith or a cutler. Scissors, knives, swords, air-guns, files, planes, locks and padlocks are exported. Many of the last articles are very small, and of admirable workmanship; they are sent into Asia, and each is sold for a rouble. *Pogost*, another village of the same sort, contains 3000 inhabitants, who carry on a trade in arms.

The population of the government amounts to 1,350,000, and in that number there may be sixty or seventy thousand *Tchuwashes* and *Mordwins*, a distinct people, of whom we have already given some account.

The government of *Penza*, which is watered by the *Sura* and the *Moschka*, is in many places fertile; the soil is generally rich and of a dark colour; the oak and the hazel-nut tree abound in the forests. Agriculture is the chief occupation of the inhabitants, and their number throughout the province is not less than a million, inclusively of 40,000 *Mordwins*, and 21,000 *Tartars*. Leather, glass, potash and spirits are the principal exports. Many horses are bred in different parts of the country, and one variety, of a white colour, is covered in winter with a coarse and thick wool.^f The women make use of different dyes, that are very durable, and they extract them from indigenous plants, such as the wild madder, the *genista* and the *serratula*. Iron-works have been erected at *Insara*, and the same metal abounds in different parts of the government. The town of *Penza* is a place of trade; it stands on a height watered by the *Sura*, and its population amounts to 11,000 souls. The country on the east of the *Sura*, is covered with forests, and the *Brassica oleracea* grows spontaneously on the banks of the rivers. *Saransk*, a town of 7000 inhabitants, many of whom are soap-boilers or tanners, and *Krasno-Slobedsk* with its numerous distilleries, are situated in the north of the province.

The southern districts in the government of *Tambof* are fertile in pasturage, and the oak and the ash are the most common trees in the forest. The soil is poorer in the north, but the pine, the birch, the alder and the lime abound in the woods. The open plains descend for the most part towards the north, and on that account the temperature is colder than might have been inferred from the latitude. Cattle are exported from the province, and the grain raised in it, is sufficient for the consumption of the inhabitants; but many natural products are neglected, among others, the kermes or Polish cochineal, which is common on the oaks, and the cantharides which abound on the ash trees. The population is equal to 1,400,000, and in that number there are about 300,000 *odnovorzi*, or free husbandmen, the proprietors of their farms. Some of the other inhabitants are Little Russians, *Mordwins*, and *Tartars*; the latter are distinguished from their neighbours by their honesty, knowledge and comparative wealth.^g The industry of the townsmen is confined to the manufacturing of cloth and linen, to the distillation of strong liquor, and the working of iron. The quantity of the last metal which is smelted in the numerous furnaces belonging to a single individual,^h amounts to a hundred and twenty or a hundred and thirty thousand *pouds*.ⁱ The district of *Kadom* abounds in honey; and flour, cattle, hides, wax and river boats are exported from

^a "Salines."

^b "Less than 500."

^c *Lepekhn* and *Pallas*, quoted by *Georgi* in his *Description of Russia*, I. p. 276.

^d It is situated at the confluence of these two rivers.—*P.*

^e Formerly held at *Makariew*, but recently transferred to *Nisch-Gorod*.

^f *Pallas*, *Voyages*, I. p. 132.

^g *Description du gouvernement de Tambof*, (*Busse*, *Journal de Statistique*, t. VII. cahier 1.)

^h These iron works belong to *M. Bataschef*.

ⁱ 4,800,000 or 5,200,000 lbs.

different parts of the country. The *Mokscha* is the principal outlet for the commerce of the province; it rises in Penza, receives the *Tzna*, which issues from the steppes on the south of Tambof, and their united streams flow into the Oka. The city of Tambof is peopled by 15,000 individuals, but its trade is insignificant. A steppe or uncultivated plain extends to the south of the town, and affords shelter for game and different wild animals.^a *Koslow* contains 8000 souls, and its commerce is more considerable; it is situated on the Woronesch, a feeder of the Don, and its rapid course indicates the declivity of the surface. The largest towns towards the north are *Morshansk* on the *Tzna*, and *Ielatna* on the Oka.

The uniformity of the central plains is interrupted to a certain extent, in the government of *Riæsan*. The country to the south of the capital is rich in grain, but the picturesque hills, and the shaded and sheltered valleys, terminate at the banks of the Oka. The northern part of the country is wilder; the numerous lakes in the district of *Iegorievsk* are encompassed by vast forests, and their waters pass by the Pra into the Oka. Agriculture forms the great occupation of the people, and the quantity of grain produced above what is consumed in the country exceeds two millions of tshetverts.^b Egyptian barley, or *Hordeum nudum*, is cultivated in the province, and the large orchards of apple and cherry trees are mostly confined to the central districts. The art of gardening is well understood, and bees' wax, nops, girkins and different vegetables are sent to Moscow. The peasants not only weave the cloth, and make the stockings which they wear, but articles of the same kind are exported and sold to the people in the neighbouring provinces. An immense number of quails are salted every autumn, and exported in barrels to different parts of the empire. Flax and hemp succeed in the northern districts, and many of the villagers are employed in spinning thread, or in making linen.

The population is equal to 1,200,000, but there are no more than 150,000 free peasants. The serfs are not so poor as in many other governments. The number of Tartars in *Riæsan* is not greater than two or three thousand, and the most wealthy amongst them reside at *Kasimow*, the ancient metropolis of a Tartar principality, and at present a commercial town of 10,000 souls. The Tartars inhabit the upper part of the town, where they have a mosque, and carry on a lucrative trade in fur. Ruins and inscriptions are observed in the neighbourhood.

Riæsan, although the capital and the ancient residence of the grand dukes, contains little worthy of notice; it is ill built, and peopled only by five thousand inhabitants, but the ancient *Riæsan*, that the Tartars destroyed, was not perhaps situated in the same place. The present town, which was probably built in the 15th century, was at first known by the name of *Pereslaw-Riæsanski*. *Olearius* informs us that it is twenty miles^c distant from the ancient site.^d Although the direction is not mentioned, it is likely that the former city lay near the confluence of the *Istra* and the Oka. It is supposed to have been the same as the *Rysa-land* of

^a "It abounds in marmots."

^b The poud is equal to forty pounds, and the tshetvert is equal to seven pouds and a half.

^c "8 leagues."

^d *Olearius, Voyag? en Moscovie, p. 273.*

^e Near the same stalls were tubs full of pismires, crawling among the eggs, and over the persons of those who sold them. Both the eggs and the ants are brought to Moscow as food for nightingales, which are favourite, though common birds in Russian houses. They sing in every respect as

the fabulous Icelandic *sagas*, but that name is, according to its true meaning, a mythological term, and signifies the land of giants.

The government of *Tula* extends along an unvaried and not very fertile plain. Rye, buckwheat, millet and wheat are raised on it, and apples, cherries, peas, cucumbers and other plants grow in the gardens. All the trees common to central Russia are found in the forests, which are by no means extensive. The bees, fed on buckwheat and the flowers of the lime, yield rich honey. Singing birds are tamed, taught different airs, and exported in great numbers.^e Lastly, fishing and the chase are not unprofitable occupations.^f Such, however, are all the advantages of this petty kingdom. It ought also to have been added that the monotonous plain is cultivated with much care by a numerous population of laborious, docile and obedient serfs. The yoke, it is true, weighs heavily on them; but their rigid masters excuse the severity of their conduct, by alleging that harsh measures are necessary, otherwise the slaves might revolt, for they are apt to imagine kindness or mild treatment, a proof of timidity or weakness. It is not unlikely that they are the descendants of an ancient Finnic race, which peopled the country on the south from *Tula* to *Woronetz*. We learn from the work of a well-informed traveller, that the peasants have fair hair like the Finlanders, and differ in their complexion from the Russians, the Cossacks and the Poles.^g They were probably a branch of the *Wiatitches*, a Finnic people, whose principal settlement was in the government of *Kursk*, and extended across *Orel* into that of *Tula*. If we suppose that the nation had made any progress in civilization, the population might have at least amounted to a million of individuals. The sovereign state which it formed, was subdued by the Russians of *Kiow*, and the natives speak at present the Russian language.

The view of *Tula* from a distance is not inferior to any other of the kind in Russia; its numerous domes, its chalk edifices shaded by trees, add to its romantic appearance, and when the stranger hears on approaching it the noise of machinery, he is ready to suppose it a busy and commercial town. But the first impression is soon destroyed; the streets are narrow, crooked and ill-paved, and almost all the houses are built of wood. Peter the First established a manufactory of arms, which affords employment to 5000 men, but the different articles that they make, are of inferior workmanship. The inhabitants amount to 30,000; there is a theatre in the town, and what is rare in Russian cities, the streets are lighted in the evening. The trade of the place consists partly in the importation of Greek wines and the produce of the Levant, both of which are exported to the north of Russia; the other exports are Russia leather, linen, woollen stuffs, cutlery and Prussian blue. Many valuable iron mines are situated in the vicinity, and the ore is found among sand or vegetable mould near the surface of the earth. It is of so rich a kind that the metal is to the ore nearly in the ratio of seventy to a hundred, and the best iron in all Russia is wrought in the works at *Dougna* near *Tula*. The other places of any importance are *Bielew* on the

beautifully in cages as in their native woods. We often heard them in the bird shops, warbling with all the fulness and variety of tone which characterises the nightingale in its natural state. The price of one of them, in full song, is about fifteen roubles. The Russians, by rattling beads on their tables of tangible arithmetic, can make the birds sing at pleasure during the day; but nightingales are heard throughout the night, making the streets of the city resound the melodies of the forest." *Clarke's Travels, chap. VII.*

^f "Peu productives," not very productive.

^g *Clarke's Travels, chap. XI.*

Occa, a town of 7000 inhabitants, *Wenew* with 3400, and the village of *Titawa*, which is partly peopled by three hundred silk weavers.

The free peasants in the government are not numerous, but there are not fewer than 1800 noble families, a greater number than in the whole of Sweden. A hundred and five bear the title of princes, and eight only that of counts. The proportion in the adjoining government of Kaluga is less remarkable, for there are thirty-six counts and only sixty-one princes. The Kiovan families that settled in these provinces at the time of the conquest, and the Finns that were not reduced to slavery, may enable us to account for the great number of nobles.

If there be any difference between the governments of Kaluga and Tula, it consists in the comparative sterility of the former; in other respects, the climate, produce and soil are the same. The people are equally industrious, and the inhabitants of inconsiderable towns are employed in manufacturing paper, fine linen or sail cloth, in dressing leather, and in making glass. The largest iron works in all Russia are those of *Ugodka*; cannon and various utensils are cast in them, but the metal used is not of a very good quality. Kaluga on the Occa contains 25,000 souls; it is not less than ten versts in circumference, but the greater part of it is ill built. Fourteen hundred workmen are employed in manufacturing sail cloth, and a trade is carried on in military saddles, pottery and boxes or ornaments made of inlaid wood. The same place is noted for its caviar, a great quantity of which is exported. The population of *Kozelsk* amounts to 3500; the streets are straight and broad, and the town is better built than many others in Russia. *Borowsk*, on the contrary, is almost wholly built of wood, but it is, with the exception of the capital, the most important of any in the province. The greater proportion of its 6000 inhabitants labour in different manufactories. Hemp and flax succeed in the government, but they are frequently destroyed by the *Camelina*.^a Many foresters protect the trees, and their labours are rendered easy by the religious processions of the Greek priests, who sprinkle holy water round the woods, and prohibit the villagers from cutting them.^b The largest forests are situated in the district of *Mechtschhof*.

The uniformity of the central plains is interrupted in the government of Orel; the calcareous hills are separated by deep vallies, the soil is more fruitful, and the system of husbandry nowise inferior to that in the two preceding provinces. It is, on the whole, one of the most productive governments in the empire, and the excess of grain above what is necessary for the consumption of the people, is not less in ordinary seasons than five or six millions of tchetverts. Wheat and rye are the chief articles of exportation. Almost every man is devoted to husbandry or the rearing of cattle, consequently much improvement has not been made in the different manufactures. That branch of industry is in some measure rendered superfluous by the absence of luxury, and the simple and frugal habits of the people. Glass and iron are, in addition to the agricultural produce, the only articles that are exported, for no more leather is prepared in the different tan works, than what is used in the province. The word Orel, which is pronounced as if it were written *Oriol* or *Ariol*, signifies an eagle, and

from *orelowa*, the genitive plural of the same noun, is derived the adjective *orlowskaia*. The government is thus distinguished by many names, a circumstance which has excited the surprise of travellers, although all of them, it must be admitted, are nearly synonymous. Orel, a town of 20,000 inhabitants, is built after the Russian manner, on the Oka, which might be there navigable for boats, if a great quantity of water were not lost in supplying the mills belonging to Count Golownin; such inconveniences are by no means uncommon in many provinces. The corn that is exported from Little Russia to Petersburg is deposited in Orel. *Ieletz*, which contains 8000 souls, and *Briansk*, a town of 5000 inhabitants, carry on a trade in corn and cattle. *Bolchow*, the second city in the government, is peopled by 14,000 individuals, and its commerce consists chiefly in leather and woollen stuffs.^c

The difference in the climate and productions of Kursk is very obvious. Winter does not last longer than four months; the arbut and the melon ripen; there are besides apples, cherries and plenty of plums; and the fruit of the wild pear tree (the only kind in the government) is made into preserves. Wheat and rye yield about nine-fold; the grain is not dried in ovens, but kept in *silos*, sometimes from six to ten years. The winter wheat, however, is not unfrequently destroyed by mildew. The meadows are never covered with water, and they afford rich pasturage. The light plough is not used; the oxen in the country are large and strong. The population is not so widely dispersed as in the other provinces, and the condition of the labourers superior. Thus the inhabitants amount to a million and a half, but there are not fewer than 320,000 *odnavorzi* or free peasants, all of whom are Little Russians.^d The greatest disadvantage in this government, as in the last, is the want of a navigable river. The *Seim* or the *Sem* appears a large river on the map, as well as the *Desna*, into which it falls, but their streams are not very deep and navigation is obstructed in many places by numerous mills. The bad quality of the water exposes the inhabitants to the *tania*, and the cattle to the *fasciola hepatica*.^e

The fortifications of Kursk have been changed into gardens and public walks, and the number of inhabitants has increased to 20,000. Wax, tallow and cattle are exported from it to Petersburg and Moscow; but its fire wood is imported from Orel. A great fair is held every year at the hermitage of *Korenaia Pustina*, which is also a place of resort on account of its miraculous image. The horses, cattle and different articles, which are sold at the fair, amount in value to five millions of roubles. *Michailovka* belongs to Count Scheremetew, who lets about 1000 houses to five or six thousand free Little Russians, some of whom travel about the country and sell their wares, while others are employed in manufacturing them. *Putiwl* contains 10,000 souls, and is the second town in the government. The extensive ruins of an ancient city, surrounded by *Kurgans* or sepulchral hills, are situated on the banks of the Swapa. A great quantity of cloth is manufactured at *Gluschkova*, and although *Korolscha* is not a place of trade, its population exceeds 9000 souls. *Belgorod*, a town of 8000 inhabitants, was at one time the capital of a government; it must not be confounded with another place of the same name, which was built in the neighbourhood of Kiew by Wladimir in the

^a A genus of siliquose plants, one of the species of which (*Myagrum sativum*, Linn.) is common among flax in Europe.—P.

^b Sujew's Travels, quoted by Georgi.

^c "Black leather and woollen stockings."

^d Larionow's Account of the government of Kursk, (in Russian.)

^e Sujew, quoted by Georgi, p. 599.

year 900. The former was not founded before the year 1597, and it is uncertain if it be the same as *Sarkel*, the city of the Chazars, for there might have been many *white towns* in a country abounding in hills of chalk.^a

It remains for us to give a short account of another government in Great Russia, that of Woronesch or Voronez, the southern half of which is wholly peopled by Little Russians. The total population amounts to 1,400,000, and the number of *odnovorzi* to nearly 500,000; the nobles in the province are not very numerous. The climate is as mild, humid and variable as in the country of the Don Cossacks. The atmosphere in summer is cooled by frequent storms, and the air is sometimes darkened by dense mists. Corn abounds, the plum, the arbuté and the melon thrive, but the grape ripens only in very warm seasons. Tobacco and *Capsicum annuum* are cultivated, and the wild asparagus grows to the thickness of a man's finger.

The land in some districts is very fertile, and others are covered with large forests of oaks, that may soon be used in the naval stations on the Black Sea. The inhabitants are exposed to great inconvenience from the badness of the water, which is hard, disagreeable to the taste, and flows through a calcareous country. The Don crosses the government, and receives the Woronesch, on which large vessels might sail in winter, but it is scarcely navigable for boats in summer.

Syphilis is perhaps the most prevalent disease in Woronesch and many other Russian provinces, but it is cured by a heroic remedy, namely, sublimate of mercury dissolved in strong spirits.

^a Belgorod or Bielo-gorod signifies white town.—P.

^b "The Zigeunes or gypsies are so numerous, that an English traveller considers them the predominant race." M.B.—"At Woronetz the gypsey

The town of Woronesch, on the river of the same name, contains 12,000 inhabitants, some of whom are employed in different vitriol and soap works, and others in manufacturing cloth, or in dressing leather. Peter the Great erected there the first doek yards for building ships in Russia, and a large botanical garden was cultivated in the neighbourhood by order of the same prince, but it is now overgrown with oaks, forest trees and underwood. Many *Zigeunes* or Gypsies wander in different districts; they are so numerous that an English traveller considers them the predominant race.^b The other towns are not large. *Ostrogoschk*, which is next to the capital, contains only 4000 inhabitants, and among them are some German colonists. It is affirmed that the tobacco pipes made by these settlers are not inferior to any in Holland.

The right bank of the Don near the confluence of the Sosna, is covered with chalk hills of a remarkable appearance, some of which resemble columns or pillars; the Russians call them the *Divni Gori* or strange mountains. The monks belonging to the ancient monastery of *Dwingorskoi*, built their subterranean cells and chapels in different parts of the hills.

The bones of large animals, teeth, jaw bones, ribs, vertebrae and others, have been observed on the banks of the Don at thirty versts from Woronesch. Some of them are entire, others are partly decomposed. They occupy a space of eighty yards in length, and descend to the depth of three below the ground.^c Whoever has seen the skeletons of elephants, might readily conclude that they are the remains of these animals.

tribe is very prevalent; and a mixed race, resulting from their intermarriage with the Russians." *Clarke*.—P.

^c "Extent, 40 toises—depth, 3 ells."

BOOK CX.

EUROPE.

Europe continued. European Russia. Sixth Section. Provinces of Little Russia. Manners and Customs of the Russians.

THE nature of the subject, and the uniformity of the country, may have rendered our account of Great Russia, and the topographical details into which we have entered, tedious and uninteresting. But another task of the same kind remains. We have still to describe Little Russia or the four governments of *Kiev*,^a *Tchernigof*, *Pultava*^b and *Charkof*; to these shall be added the former Polish provinces of *Podolia* and *Volhynia*, because the great majority of the inhabitants are Little Russians by origin, and they still adhere to the rites of the Greek church. These causes may account for the great success of the Russians in their invasions of the late Polish republic, which was chiefly composed of provinces wrested from Russia, or from the grand dukes of Galitch or Halicz, Vladimir-Volynski, Polotzk, and particularly Kiow, by Boleslaus the Victorious, and Casimir the Great, kings of Poland, and by Gedimin, grand duke of Lithuania. All the peasants were Rusniacs or Little Russians, ignorant of the language and customs of Poland; they abandoned their lords without reluctance, and received willingly the Russian soldiers, who spoke nearly the same dialect as themselves. The same people were persecuted by intolerant Catholic priests, who disregarded the *constitutions* of the Polish diet. Thus the nobles were the only persons interested in the defence of provinces, whose inhabitants were estranged from the Poles, although they had remained under their government from the time of the conquest. The division of Poland was on the part of Russia not so much a lawless invasion as an act of reprisal on former invaders. Had the leading historical facts been explained in the Russian manifestoes, which were circulated in 1772, so much obloquy might not have been attached to their conduct.

Little Russia and the Polish Ukraine make up a country of 32,156 square miles, or 6425 square leagues,^c and the population is not less than 9,200,000 individuals,^d who are almost equally distributed on the opposite banks of the Dnieper. The country is lower than the central table-land of Russia, and the promontories of the Carpathians that bound it on the east and the west. The Ukraine forms a great plain varied only by inconsiderable heights. The Dnieper, which marks the lowest line, divides it into two parts, and the eastern banks of the river are in most places low and marshy. The two governments of *Tchernigof* and *Pultava*, and the western half of *Charkof*, form a sloping plain that rises gradually from the banks of the Dnieper to

the central table-land of Russia. The line at which the plain terminates, and the table-land begins, has not been accurately determined; it is known, however, that it crosses and does not circumscribe the basins of the rivers. The whole of this country, with the exception of some belts of chalk and sand in the government of Tchernigof, is covered with a layer of dark and rich mould. The eastern half of Charkof forms the extremity of the central table-land; it may be compared to a steppe with a gentle declivity towards the basin of the Don. The soil is sandy and not very fruitful. The country is much more varied on the Polish bank of the Dnieper, and hills from a hundred to a hundred and fifty feet in height, bound the course of the river in the government of Kiev, in which there are many picturesque views, although the greater part of the country consists of large plains. The hills that extend from the falls of the Dnieper, cross the south of the province, and divide the streams and rivers. The Ross, the Moszyn and the Tiasmin enclose within their branches, which are united by lakes, a sort of delta near Czerkassy, the ancient capital of the Cossacks. The land in that part of the country is fruitful and covered with rich herbage; it is also the lowest in all the Ukraine. The hills of *Nedoborschetz* in Podolia are five hundred feet above the level of the Black Sea; they are a branch of the ridge of *Biecziad*, that extends across Red Russia to the east of Lemberg, and abounds in lakes, and of which the elevation has not been measured. Other chains connected with the Biecziad mountains penetrate into Volhynia, but are nowhere higher than 350 feet. Numerous cascades and romantic vales in the hilly country of Podolia have been described by travellers; but we are convinced from the examination of maps recently drawn from surveys in the different districts,^e that the apparent inequalities in the province are chiefly occasioned by deep vallies and the confined beds of rivers. The hills and plains in the three governments are covered with a layer of dark and rich mould, but the soil in Podolia is mixed with a greater quantity of clay, and sand is more common in Volhynia; the northern part of the last province is connected with the wide marshes in the former Polesia.

Almost all the streams and rivers in the two Ukraimes serve to enlarge the Dnieper. On the left or Russian side, are the *Desna*, which is joined by the *Sem*, and crosses the whole of Tchernigof, the *Sula*, the *Psiol*, the *Worskla*, which waters Pultava and the northwest of Charkof, and the *Oriel*, that marks the frontier of Pultava; on the right or Polish side, are the *Pripetz* or outlet of all the marshes in Polesia, the *Tetirew* and the *Ross*; all these streams fall into the

^a "Kiovie," Kiow or Kiow, Kief or Kiew.

^b Poltava, Pultowa.

^c "17,850 square miles, or 6425 square leagues."

^d "9,000,000—9,200,000."

^e Atlas of Podolia, accompanying the Statistics of Marczynski.

great central river, of which the navigation is unfortunately broken by cataracts. The rivers in Podolia are branches of the Bug and the Dniester.

The climate is nearly the same in both of the Ukraines; the eastern districts of Charkof, and the northern of Tchernigof form an exception, and are more connected with the climate of Kursk. The rivers never freeze before the month of December, and are always open by the end of February, but the northeast and sometimes the west wind are the harbingers of sudden and intense cold. The rivers are sometimes drained by the summer's heat and the total absence of rain. The stagnant waters generate different diseases, and swarms of locusts are then scattered over the country from the valley of the Dniester to the fields of Volhynia. The climate is admirably adapted for every kind of grain, and the ordinary return is as ten to one. The plough is the only instrument that is used, and the lands set apart for corn, are never manured. The fertile meadows are covered with trefoil and lucerne, and the oxen in the Ukraine are little inferior to the Hungarian or the best in Europe; the horses are much larger and stronger than in Russia.^a The apple, pear, cherry and plum trees are covered with fruit, which is exported in its raw state, or made into preserves and strong liquors. There is no scarcity of tobacco, cochineal,^b wax and honey; the fine oaks in the Ukraine are used in building ships, but some districts, particularly in Pultava and Charkof, are ill supplied with wood. Plantations of mulberries thrive in different parts of the country; the vine is cultivated in the neighbourhood of Kiew and Nejin, but the grapes are acid and unpleasant to the taste. We shall enter into the details connected with these general observations, when we give an account of the provinces.

The people are not degraded by slavery in the Russian Ukraine. The Malo or Little Russians, who make up the mass of the community, enjoy personal freedom; they are either *odnworzi* (petty proprietors,) or *posadki* (free husbandmen.) They are frank, hospitable and gay, their happiness is seldom disturbed by worldly cares, and their affluence is proportionate to their industry. The nobles are for the most part of Polish or Great Russian origin; they have no slaves, and are distinguished rather by the virtues than the vices of their order. The burgesses and traders have not to contend against the children of Abraham, and a Jew cannot settle in the country without making himself liable to severe penalties. The Polish Ukraine is very different; it is true that the peasants are not less gay, but they are poor and wretched; all of them are covered with rags, and inhabit dirty cottages. Although their bondage is less rigid than in Great Russia, it is sufficient to weaken the energy of their character. The petty nobles are Poles, and form the next class above the peasantry. The great proprietors, though the lords of extensive domains, are often poor, and all classes of society are under the thralldom of the Jews, who swarm in the towns and in the country, and are more destructive than the locusts, for the ravages of the last are only temporary.

The town of Kiew is not only geographically, but politically the central point of the Ukraines. It was once the first town in Russia, a long time the pantheon of the Slavonic divinities, and at a later period, one of the holy cities of the

Greek Christians. The Great Russians call it Kiow, and it is still one of the most remarkable places in the empire. It stands on the right bank of the Dnieper, rises on several hills, and its quadruple enclosure encompasses four distinct divisions. *Podol* or the low town, the residence of tradesmen and burgesses, is situated on the banks of the river and adorned by an imperial palace and several public buildings, among the largest of which is the university. All the professors are monks, who make a vow never to eat animal food, but most of them contrive to elude or break their oath. This university is known by a very long Latin name,^c and it is generally attended by more than 1500 students. The edifices most worthy of notice in the *High Town* or *Ola Kiew* are the cathedral, which is perhaps the richest of any in Russia, and the monastery where the metropolitan of Kiew, Halitsch and Little Russia resides; the other houses are chiefly inhabited by monks. *Vladimir*, another quarter, was founded by Catherine the Second, but the whole of it is not yet inhabited. *Petscher* or the citadel is regularly fortified, and commands every part of the city except a small portion of the high town. The different ministerial offices, the barracks and the famous convent of *Petscherskoi*, in which are deposited the bones of one hundred and fifty martyrs,^{d e} are situated within the fortress. The most of the houses that form the *slobode*, which extends to the base of the citadel, belong to the convent. The total population amounted in 1802 to more than 40,000 souls,^f but it has rapidly increased of late years. Apricots, peaches, and in some seasons grapes, ripen in the imperial gardens; but *wymorosli* or the national drink, is a sort of verjuice or imperfect wine.

The government of Charkof or Kharkof, one of the three on the east of the Dnieper, contains several flourishing towns, among others, the capital of the same name, with a population of 15,000 souls, *Achtyrka* and *Sumi*, each of which is peopled by more than 12,000 individuals, and two others of ten thousand inhabitants, or *Tchougoniew* and *Bielopolie*. The trade of these places consists for the most part in spiritous liquors, leather and woollen stuffs. The mulberry thrives in the neighbourhood of Kharkof, and a small grape without stones, and of an acid flavour, arrives at maturity in the gardens of *Isium*. Much corn is consumed in the numerous distilleries, still the quantity exported from the province varies from two to three millions of *tshelverts*. The land owners pay great attention to the breed of horses and sheep, but the latter are subject to the *mokilitza*, a contagious disease by which thousands are destroyed. Numerous flocks of pigeons, the property of no master, are seen throughout the country. Different kinds of vegetables are cultivated, and asparagus grows spontaneously in the steppes. *Quas*, a national drink, is made from wild apples and pears, *wischnewka* from cherries, and *ternewka* from mazzards and plums; they are pleasant to the taste, and not unwholesome. The Jews are suffered to remain in the country, and the indulgence of the inhabitants towards them is one of the greatest evils to which the province is exposed. The town of Kharkof is the seat of one of the seven Russian universities, and it possesses besides several libraries, museums, and academical collections.^g

The extensive and monotonous plains in the government

monks and martyrs."—The vaults contain a number of undecayed bodies, supposed to be the relics of saints. *Ed. Encyc.*

^f *Russischer Merkur*, 1805, No. II, page 148.

^g *Topografitchii Opisaniie Kharkowskoi Namestnischestwa*, (translated in Busse, *Journal de la Russie*.)

^a *Levasseur de Beauplan*.

^b *Kermes* or Polish cochineal.—*P.*

^c *Academia orthodoxa Kiowo-Mohilawano-Zaboromskiana*.

^d *Herbinius, Religiosae Kiowenses crypte* JENR, 1675.

^e "In which are preserved in a state of desiccation, nearly 150 bodies of

of Pultava may be shortly described. It is difficult to say much concerning wide fields covered with fruits and every kind of grain. The vine might perhaps be cultivated, but the prospect is rarely varied by woods or forests. White honey and the *girka*, a sort of beardless summer wheat, the *tribulus aquaticus*^a that abounds in the Dnieper, and the Polish cochineal, with which many oaks are covered, may be mentioned among the productions of the government. The *anas cygnoides* or blue Caspian goose, and the *anas boschas* or Persian duck, are not uncommon in the poultry yards, and the pelican, the red duck and the *ardea virgo* are observed among the wild birds. It appears from the calculations of Hassel that the population exceeds two millions;^b the government is therefore after Moscow, Kaluga and Kursk, the most populous of any in Russia; the inhabitants are chiefly composed of *Malo-Russians*, and the greater number are devoted to agriculture. None of the towns are of much importance. *Poltava* or *Pultawa*, the capital, is peopled by 10,000 souls, and is chiefly remarkable on account of its monument in honour of Peter the Great, and the victory from which the Russians date the commencement of their military glory. A pillar has been erected over the graves of the Swedes, who were interred on the field of battle. *Periaslavl*, which contains 8000 souls, was at one time the residence of Russian princes. The sandy plains covered with the *Herniaria glabra*, extend to *Kremen-tchuk*,^c a town of 8000 inhabitants, several of whom are *Roskolniki*, others are German colonists, and many are employed in different manufactories. The gay and cheerful villages are inadequate for the numerous population, and a great number of individuals reside in caravans^d and clay cottages.^e

The government of Tchernigof is less monotonous than the last, but its produce is not different, and the stranger observes the same crops, the same fruit and the same pasturage as in Pultava; but several districts are well wooded, coniferous trees are common in the forests, and ratifia and other liqueurs, particularly *woschnowska*, are made from the different kinds of cherries, that abound in the province.^f *Tchernigof* or *Tchernigow*, the ancient metropolis of a duchy, is peopled by 10,000 souls; but *Neschin* or *Nejin* is generally considered the most commercial city in the Ukraine; the inhabitants amount to 16,000, it possesses several silk manufactories, and carries on a great trade in Greek wines, Crimean salt and other articles, that are imported from Asia and the Archipelago. Merchants from Poland and the remote provinces of Russia repair to its fairs. *Gluchow* contains 9000 individuals, and the population of *Novgorod-Seversk*^g is less than 8000, but it was once the chief town in the principality of Severia.

The capital of Kiev has been already mentioned; most of the other towns in the government are insignificant. Neither *Uman* with its stately castle, nor *Tcherkassy*, the ancient metropolis of the Cossacks, contains more than 3000 souls. The nobility reside at their country seats, and the cottages in the villages, although neatly painted, are constructed of

clay and the branches of trees. The Jews monopolize the retail trade, they are the landlords of almost all the inns, and their houses are more substantially built.

Although Podolia, according to its new limits, is much diminished, it is still the most fruitful province in the Polish Ukraine. Many sheep and fattened oxen are every year exported, and so much corn is raised above what is consumed by the inhabitants, that it is often difficult to find a market for the redundant produce. The average return of wheat in the neighbourhood of Ussitza is as fifteen to one. The forests which abound in oak, terminate near a line drawn from Raschkow on the Dnieper to Uman.^h The land is indented by the vallies through which the rivers flow, and varied by waterfalls, caverns and romantic landscapes.ⁱ Beds of alabaster, gypsum and slaty clay extend in different directions, and the vine grows in espaliers in the orchards and gardens. The Podolian tobacco is the best in Russia, and forms the source of a lucrative contraband trade. The peasants have many hives; fish abound in the rivers; the saiga, a sort of gazelle, the suslik, a species of rat,^k and the stork, are the most common wild animals in the province. *Kaminic* or *Kamenetz* with its castle on a rock is still a fortress, but its military importance was lost when Choczim and Bender became Russian towns; its population does not exceed 6000 souls, and it is the residence of the provincial authorities. The commerce of the country appears to be concentrated in *Mogilev* and *Szarygrad*; the former possesses 7000, and the latter 6700 inhabitants. *Bar* and *Targowicz*, which have acquired a sad celebrity in the history of Poland, were the seats of two confederations. A colony of German manufacturers has been established near the large castle of *Tulezyn*, and the industry and ability of these foreigners enable them to contend with advantage against the other inhabitants. *Iskorest*, which is near the sources of the Bog, was once the capital of the *Drewlians*, a Slavonic people. The population of the whole province, according to the old tables of Marczynski, was equal to 93,000 nobles, 136,000 Jews, 197,000 Christians of the Latin, and 838,000 of the Greek Church; although it must have considerably increased since these tables were published, the relative proportions may have remained the same.^l

Volhynia or Wolhynia, which extends to the north of Podolia, is not less fruitful, and the mildness of the climate is partly owing to its low level. The vine does not succeed, but the temperature is not nearly so cold as in Swabia and Franconia.^m The chalky soil produces plenty of millet, rye and wheat; the latter is heavier, and yields a greater quantity of flour than any other in Poland.ⁿ Iron, mill-stones, potter's clay and saltpetre are wrought in the country, and amber has been obtained in the neighbourhood of Dubno. The pastures are abundant, and the hills and marshes are shaded by lofty forests. Rosemary, asparagus and hops grow in a wild state, and are of a good quality. The *urus* is sometimes seen in the solitary forests on the northwest.^o Most of the towns in Volhynia are ill built. *Berdyczew*, the largest, is peopled by ten thousand indivi-

^a "Water chestnut," water caltrops, *Trapa natans*, L.—P.

^b "Almost equals 2,000,000."—1,350,000. *Ed. Encyc.*

^c *Kremen-tchuk* is derived from *kremen*, a flint; there are extensive beds of flint in the cretaceous hills on the banks of the Dnieper.

^d "Wagons"—like the ancient Scythians.—P.

^e Hevni, quoted by Georgi.

^f "The cherries, particularly the variety called *tcheraschut*, are remarkable for their sweetness. The liqueur called *woschnowska*, is made from another species."

^g Novgorod-Sieverskoi.

^h Tableau de la Pologne, p. 243.

ⁱ See the views in the Atlas of Marczynski.

^k The suslik is the *Arctomys citillus*, a species of marmot.

^l Population, according to Hassel, 1,600,000. M.B.—1,181,200. *Ed. Encyc.*

^m "Its climate has been compared to that of Swabia and Franconia."

ⁿ Rzaczynski's Natural History, p. 67, 294.

^o Aperçu général de la Volhynie et de l'Ukraine, Pétersbourg, 1804.

duals, but they are mostly Jews. All the inhabitants are very filthy, and the Israelites more so than the rest. Some German and Russian merchants amass wealth in the town, but they do not live differently from their neighbours. *Dubno* contains five or six thousand inhabitants, and it is frequented by the Polish nobility in the Ukraine, who meet there to enter into contracts, and to settle their commercial transactions. *Jitomirz*, the present metropolis, has been embellished by government, but its population is not equal to five thousand souls. *Wodzimierz* or *Wlodimir*^a is wholly inhabited by Jews; and it has given its name to the "kingdom of *Lodomiria*," which now forms a part of the Russian empire, although it was claimed by Austria in 1772. *Ostrog* is the capital of the country assigned to the knights of Malta; there is no other society in Europe which possesses so large a territory; it has, however, been divided among a few powerful individuals. This province is the adoptive country of the *Lubomirski* and the *Czartoriski*, two illustrious Polish families, that were enriched by the ancient, and impoverished by the recent conquest of Malo-Russia. The Polish nobles in Volhynia are supposed to amount to 60,000 individuals.

We have now concluded the topographical account of Great and Little Russia. The task, we are well aware, was not an agreeable one, but it was difficult to avoid repetition from the nature of the subject, and the resemblance between different provinces. We shall next offer some remarks on the moral and civil condition of the people that inhabit these regions.

The German writers pay little attention to the difference between the Great and Little Russians, and suppose incorrectly, that they are now confounded, or form one and the same people. But the Little Russians or more ancient inhabitants retain their national physiognomy, and are easily distinguished by their finer features, dark or hazel eyes, loftier stature, and more harmonious language. The Great Russians, who are scattered over the wide territory inhabited by the Finns and Huns, must have necessarily mingled with these races, which are essentially different from the Slavonic; hence the red or yellow hair, the coarser features, and the stupid expression of the Great Russian peasants. Their moral character is not the same. The Great Russian is selfish, cunning and avaricious, devoted to the chicanery of trade, and regardless of probity or faith with strangers. Peter the Great said truly, that had he allowed the Jews to enter his empire, they might have become the dupes of his subjects. The Little Russian, on the other hand, is indolent, confiding and generous; he never thinks of the morrow, enjoys his mild climate, and seldom labours, unless compelled by necessity; he commits the management of his affairs to Jews, Greeks, and Great Russians, who are always ready to impose on his simplicity. Although the Malo-Russians were long oppressed by the Poles, they are free, and not degraded, like the Great Russians, by the absence of those virtues which are incompatible with a state of bondage.^b The free and fierce nation of the Cossacks has been modified by its intercourse with strangers, but it is sprung from the Malo-Russians. The *Weliko-Russian*, on the contrary, has been fashioned for the yoke by the lapse of ages, and by his connexion with the Finns; still he is not always passive; his resistance, although often founded on frivolous pretexts, is obstinate and

savage. It is not easy to contrast different nations, and the difficulty is increased in the present instance by the extent of the country, the number of inhabitants, and the inaccurate observations of travellers.

The Russian peasants can support great fatigue, but they have not the same muscular strength as the people in some northern states. The privations of the peasantry, the long and painful marches of armies, and the severity of corporal punishments, are the almost incredible examples of what a Russian can endure. The soldier is often compelled to traverse desert steppes in which no water is found, or to pass the winter in subterranean huts without fire, and with no other provision than dry biscuit. A criminal, after suffering torments of which the very sight is appalling, returns to his prison without support, and without any apparent change in his gait. The muscular force of the Russians in the north, does not correspond with what may be termed their passive strength. A greater number of hands are employed in Russia than in other countries, to raise a weight, or to carry a burden. An English sailor often does more work in Petersburg than three stout natives. They may perhaps be more indolent, but the real cause is the want of vigour and activity, an indication of their Finnish descent. The Russians are not a tall people, and although rarely well proportioned, few of them are deformed, which may perhaps be owing to their open and unconfined dress, the great exercise that they take, and the fact that weak children generally fall a sacrifice to the hardy way in which they are brought up.

The characteristic traits vary, but most of the Russians have white teeth, small and dull eyes, a narrow forehead and strong beard. The hair is of every shade from the dark chestnut to the red; but it is rarely black, stiff and shining, a peculiarity which is confined to the descendants of the Huns, Laplanders and Woguls. The last remark might be easily verified by travellers. The Russians have quick ears, but their other senses are not improved by the climate and their manner of life; thus, impaired vision is commonly attributed to the continuance of the snow, and a vitiated taste to the nature of their food.

A fine skin and a fresh complexion are, in the opinion of the natives, all that is necessary in female beauty. It cannot be denied that the Russian women have a brighter complexion than the inhabitants of other countries, and yet it is equally true that rouge is nowhere employed in such profusion as in Russia; it is not confined to the higher orders, but is used by every class in the community. The women are not incased in stays, and such is the effect of prejudice, that strangers consider their waists too large, and out of proportion with the rest of the figure. Girls are marriageable at the age of twelve or thirteen, and according to the common opinion, the effect of climate is counteracted by the frequent use of vapour baths, which, if they accelerate the development of the body, bring on infallibly the marks of premature old age. The charms of youth soon disappear, and the women rarely retain their looks a few years after their marriage. Whatever may be the cause, whether the immoderate use of rouge and the vapour bath, or rather the savage tyranny of their husbands, the remains of beauty are often no longer discernible at an age when the other sex is hardly arrived at manhood.

The singular and strange marriage ceremonies of the

^a "Wlodimir is the Russian name."

^b These remarks are applied in the original to all the Malo-Russians.

and more particularly to those in Russian Ukraine, but not excepting those in Polish Ukraine, who were long oppressed by the Poles.—P.

Russians are now partly abolished. It was customary for two families to settle an alliance before the parties had seen each other. The bride was then examined by a council of elderly matrons, who took off her clothes, indicated her bodily defects, and prescribed what was necessary to correct them. The lady was crowned on the day of her wedding with a garland of wormwood, and when the priest had tied the nuptial knot, the clerk sprinkled a handful of hops on her head, and expressed a wish that she might be as fruitful as that plant. The last ceremony is not abolished. Those who visit a woman after she has been in travail, must slip a piece of money under her pillow; the sum varies according to the wealth or rank of the individual, and it is only exacted from married persons, because they, it is supposed, may one day profit by the custom. That practice is still common in central Russia; it is observed by all the inhabitants of Moscow, but it is no longer in use at Petersburg.

The opinions which the catholics entertained about two centuries ago, concerning the soul after death, were not more absurd than the present notions of the people in Russia. When a man dies, a priest is hired, who prays over the corpse, purifies it with incense, and sprinkles it with holy water, until it is consigned to the dust. The priest writes a passport for heaven, which is signed by the bishop, and in his absence by some other dignitary. This paper is put between the hands of the deceased, and the lowering of the coffin into the grave is the signal for loud cries and horrid yells. The attendants return to the house of the defunct, and forget their grief at a feast, which is kept up by the higher orders for forty days. The priest delivers prayers over the grave during the period of festivity; for although the people do not believe in purgatory, the dead, it is imagined, are consoled by these exorcisms, and arrive with less fatigue at the end of their long journey.

The pompous ceremonies and rigid fasts of the Greek church are strictly observed by the people and the nobles. A dismal lent is succeeded by the festival of the resurrection,^a and the fasting and mourning are soon forgotten in mirth and amusement. The majestic spectacle has been described by travellers. The noise of sonorous bells is compared to the rolling of distant thunder; the lustre of many thousand wax lights, and the dazzling splendour of the clerical costume, add to the novelty of the scene. Joy reigns, and the cry of *Christos voskress*, Christ is risen, resounds throughout the empire. Such a festival is not uninteresting, although the noise, parade and ostentation accord ill with our religious notions. The Greek church accommodates itself to the habits of a sensual nation, and sanctions whatever may diminish the privations of a rigorous climate. The relaxed state of clerical discipline is less excusable; the *popes* or priests grant absolution to any that ask it, and many are tainted with the gross vices of the people. The nobles wear crosses and amulets, which they call their god,^b and superstition is substituted for piety.

Some heathen ceremonies of a harmless nature are still observed in Little Russia. The twenty-fourth of June is the festival of *Kupo*; the young men assemble round a tree

^a Easter.

^b *Bog*.

^c MS. notes of M. Choris.

^d *Biou kak choubou, i toublou kak douchou*. Literally, *I beat you like my pelisse, I love you as my heart*.

^e Mr. Coxe does not affirm that the intervals are filled with bark, nor is it so stated in the original. In the latter it is stated that the houses are built of trees laid across each other at the corners, and not of bark as Mr. Coxe affirms; but Mr. Coxe affirms that the houses are built of the trunks of trees, the bark of which is left on the outside, and hewn off in the interior.—P.

decorated with ribbons, and a table covered with sweetmeats. The anniversary of *Koliada* is celebrated in the month of December, and national songs are sung in the towns and in the country.^c

The dress of the peasantry in Little Russia does not differ from that of the Poles, and the *kourika* is worn with the *charavari* or wide pantaloons. The costume of the peasants in Great Russia is different. Sheep skins descend in winter to the middle of the leg, and a cloth coat is fastened by a girdle in summer. The stockings are made of cloth, the shoes of bark; a round hat is common in summer, and a fur cap in winter. The neck is always bare, a very strange custom in so cold a climate, but it is not unfavourable to health. A knife and a hatchet are suspended from the girdle.

The women, at one time adored, at another treated like slaves,^d contrive to vary and embellish their costume. The *sarafan* or light robe is worn under a pelisse, but the most costly ornaments are reserved for the head-dress. A band, which is adorned with pearls or precious stones of different colours, and resembles a tiara or open crown, is generally worn in Novgorod and the adjoining governments. The peasant girls in the western provinces wear a net, like the Spaniards, but it is studded with pastes or mock pearls. A sort of bonnet, which rises perpendicularly in the form of a crescent, is not uncommon near the Oka, and in the neighbourhood of Murom and Kasimow. The dress of the women in Little Russia from Voronez to Kiow and Volhynia, is of a particular character; tresses, ribbons and flowers are bound round the head, a chain is suspended from the neck, and red boots correspond with a petticoat of the same colour.

The antiquated dames in the ancient court of Versailles, never disguised themselves so effectually with rouge, as the fair Russians of the present day. The mineral compositions which they purchase, are exported from the east and the Levant; but the women among the peasantry are satisfied with a cheaper and less deleterious kind, that is extracted from plants and roots.

The houses of the peasants are all built after the same plan; the inner court forms an oblong, and is surrounded by sheds; a hay loft is commonly erected at one extremity, and a kitchen garden extends beyond it. The materials for building are trees, that are laid horizontally above each other; the interstices are filled with moss, and not with bark, as Mr. Coxe affirms.^e The family chamber is generally in the second story, though not unfrequently on a level with the ground. The inmates ascend by a stair or ladder; a stove takes up a fourth part of the room, and men, women and children sleep together in a recess or alcove, which communicates with the chamber.^f The principal apartment forms a square of fifteen or twenty feet; the height varies from six to eight, and the ordinary temperature from 70° to 80° of Fahrenheit.^g

The furniture consists of wooden ware and earthen pots; indeed it might be difficult to mention a people whose houses are so ill and so scantily furnished. A wretched bed or pallet is a proof of wealth by no means common among

^f “— on a platform above the stove.” The Russian peasantry, during winter, generally sleep on the flat and warm tops of their ovens (stoves.) In Russia, all the peasants' houses have stoves, like bakers' ovens, with flat roofs, in which they not only bake their bread, but also daily cook their victuals. On Saturday evening, these ovens are made to serve the place of vapour baths. *Ed. Encyc.*

^g “20° to 30°”—if Reaumur's scale, 77° to 100° Fahr.

the peasantry of the nobles; the serfs of the crown, though not so poor, are equally indifferent about cleanliness or comfort. The meanest cottage and the most sumptuous palace are adorned with figures of the saints; the Russians bow to them when they come into the house, pray to them every evening and morning, prostrate themselves before them, and kiss the ground.

Pork, fish, soup made of salted cabbage,^a mushrooms and pepper^b are ordinary dishes, and they require, it is thought, some glasses of brandy to digest them. But the people have often recourse to a lighter diet, and the inhabitants of many districts live partly on eggs, milk and fruit. The effects of ardent spirits are rendered less deleterious by the great consumption of anti-scorbutic fruits, and of *quas* or light acidulated beer without hops. The *braga* or white beer, and the *wymorosli* or fermented and frozen wine are not very strong, but unwholesome spirits and a variety of sweet liqueurs act as a sort of poison.

The Russians are a healthy people; the diseases prevalent in the country are seldom dangerous, and most of them give way to a light diet and simple remedies. The women bear children without much pain, and the number of still-born infants is not nearly so great in proportion as in some European countries. It appears not only from the writings of travellers, but of Russian authors, that syphilis is common in the towns and in the country, and that the virulence of the disease, and the chances of contagion, are increased by the severity of the climate. It is not easy, however, to reconcile their opinion with the numerous instances of great longevity.

The popular remedies may excite the surprise of our readers. Leeks, onions and Spanish pepper mixed with strong spirits are the great panacea. The nature of the malady is of secondary importance, the cure is equally applicable to all. Vapour baths are prescribed to invalids, certain plants are efficacious against rheumatism,^c and gunpowder or sublimate of mercury, according to the nature of the complaint, are dissolved in alcohol, and given to the peasantry.

The public baths are ill built, and generally situated in the neighbourhood of a stream or river. A court, in which benches are placed, supersedes the necessity of dressing rooms. The temperature of the bathing chamber varies from 104° to 122° of Fahrenheit, but it may be augmented by pouring water every five minutes on the stones of the stove or furnace, and the last step to which the bathers descend is occasionally raised to the temperature of 131°. Many persons, on quitting the bath, plunge into the adjoining river, like the young Romans who swam in the lakes, after leaving the gymnasia. It is not uncommon for a Russian to go out of his vapour bath in winter, and cool himself in the snow, when the thermometer is 10° below zero.^d Our medical men are not over-cautious in advancing systems, theories and hypotheses, but they have not as yet approved of this custom, which is at least sanctioned by antiquity.^e The Lacedemonians and the Spaniards on the Douro used "*red-hot stones*" in the same manner as the Russians and Finns of the present day;^f and the prejudices against Medea arose probably from a rash attempt to introduce the same custom which she is said to have

invented, or rather to have observed among the people in the north.^g

The amusements of the Russians are now curtailed. The patriarch is no longer conducted on an ass by the czar, and the people no longer shout their *hosiannas*. Ambassadors, deputies and the representatives of different governments are not now accompanied by cavalcades of a thousand persons offering presents and tribute to the Autocrat, and receiving in exchange the honourable distinction of wearing robes and castans. But the Russian delights as much as ever in noisy gaiety, and his admiration of parade is nowise diminished. No Frenchman, and consequently the inhabitant of no other country in Europe, dances or sings so frequently as the Russian. The youth are trained to gymnastic exercises; the old and the grave are often mounted on wooden horses, and indulge in the recreation of the swing or in the pastime of see-saw. The Russian mountains are common in more than one European kingdom, but those in Russia are superior to all others, in as much as the descent on the ice is safer and more rapid. The natives vary the exercise by descending on their skates, an amusement which is not free from danger, although more extraordinary feats are performed by the Norwegian skaters. Many mountains of the same sort are erected in Moscow during the carnival; they are encompassed with shops, coffee-houses and temporary theatres, in which farces are acted. The inhabitants dance in the open air in the middle of winter.

The Russians are more distinguished by their imitative than inventive talents, and the peasants in many districts are obliged to make whatever they require. Ploughs, carts, household furniture, shoes, boots, caps, linen and woollen stuffs, stockings and gloves, are all the products of domestic or individual industry in the greater part of central Russia. The nobles turn the mechanical aptitude of their serfs to good account. The master enjoins one to be a mason, a second for the same reason becomes a tailor, and a third is dubbed a painter. Each man labours in his new vocation, and according to the way in which his work is executed, he is rewarded with brandy, or punished with the lash. The division of labour is no principle in Russian economy; different arts are exercised by the same individual, and the confusion of trades is exemplified in the house market, one of the curiosities which Moscow possesses in common with other great towns. A large square in the suburbs is the place where the market is held; a variety of materials for building, and the houses wholly made of wood, are usually exhibited. He who wants a house, repairs to the market, tells how many rooms are required, examines the quality of the wood, which is carefully marked, and concludes a bargain. The seller generally agrees to remove and raise the building on the place that the purchaser wishes. Thus it often happens that a house is bought, removed, erected and inhabited within the space of a single week. It must not be imagined that such dwellings are durable; they are seldom habitable any length of time, and it is a very easy task to demolish them in a few hours. Beams and laths, for the construction of brick buildings, stoves and different articles of furniture, carriages and wagons, are sold in the neighbourhood of the market.

^a "Soupe aigre aux choux," *stchi*, or sour cabbage soup.

^b "Piment," capsicum.

^c "Moxa is applied to the skin in colic and rheumatism."

^d "When the cold is 10°—if Reaumur's scale, + 10° of Fahr.

^e "The use of vapour baths was common among the ancients."

^f Strabo, III. p. 154. Celsus, l. II. c. XVII. l. III. c. XXVII.

^g Böttiger, *Vasengemælde*, c. II.

The manner of life, and the habits of the Russians, depend in some degree on their civil condition. Other distinctions have been introduced by legal enactments, but the body of the nation is divided into two great classes—the free husbandmen and the slaves. The *odnodvorzi* or the proprietors of small hereditary estates may purchase serfs under a fictitious name, but they are liable to be arbitrarily transported from one province to another. The *posadki* or free farmers cannot possess land, and the freedmen agree to perform statute labour^a or different services, and grant generally personal obligations for the price of their liberty. The free Russians are chiefly composed of these classes; their wealth varies according to their industry and resources, but few amongst them have to struggle against poverty or want. The peasantry of the crown hold the next rank after the freedmen, and they are divided into serfs of the empire, of the domains and different stations;^b they are exempt from statute labour, but subject to the *obrok*,^c a tax which depends on their condition and different provincial enactments. The serfs of the mines, like those of the crown, are mildly and humanely treated; their intellectual degradation is a calamity of which they are unconscious, their physical wants are supplied, the peaceful tenour of their lives is rarely disturbed, they have not to serve rigid masters, and they are strangers to the privations of poverty. The greatest evil in their condition is the uncertainty of its continuance, and those who are to-day the vassals of the crown, may be to-morrow the serfs of nobles and landed proprietors. It is unlawful for the purchaser to punish them without a just cause, but the laws are often disregarded, and it is not safe for a slave to complain against his lord. The slave of a noble is sometimes flogged until his life is endangered; his daughters are often the victims of an unhuman master's lust, and his condition is little better than that of a negro. It must not be inferred that every slave is exposed to the same hardships; all the masters are not alike, and many peasants are more fortunate than others.

Little can be said of one class in the nation, because little is known of the individuals that compose it. Few travellers visit the real Muscovite burgesses; indeed it is more difficult to be admitted into their society than into the circles of a frivolous nobility. The trading citizens are active, sober and indefatigable in the pursuit of gain. They retain the customs which they borrowed many ages ago from the Armenians, the Chinese and the inhabitants of the Hanseatic towns. They are distinguished by the same assiduity in their calling, the same perseverance, and the same minute care in keeping their accounts; but they are much more ignorant than the old German burgesses; and it is not to be expected that men of such habits, and who receive so imperfect an education, can be at all solicitous about moral or political improvement.

It is not long since they dwelt in the same sort of houses, wore the same coarse dress, and lived on the same kind of food as the wealthy peasants. But changes have taken place of late years, and the fat and fair wives of the citizens now indulge in the luxury of tea. The same ladies appear in their *droskis*^d on gala days, and display their head-dresses

of matted pearls, their diamond ear-rings and fine Turkish or Persian shawls, which descend in light folds to the feet. Those that do not admire the Asiatic dress, wear the embroidered *feredja*, and the national costume is not destitute of elegance or grace.^e Travellers observe Russian society in the saloons of the nobles, and mix rarely with the citizens or the commercial inhabitants of towns, although the wealth of the latter renders them influential, and although their numbers are rapidly increasing. Much has been said of their Punic faith and fraudulent dealings. But the writers who accuse them so unsparingly and in such vague and general terms, are in all probability ignorant of their character. We ask if great commercial undertakings, long voyages and well-established credit are the fruits of dishonesty. We ask too if the burgesses under *Kosma Minin*, were not as well as the peasantry under Poyarski, and the boyars under Trubetzkoï, the liberators of Russia. Engelhardt of Smolensko, a generous citizen, sacrificed his life in the last war, rather than betray his sovereign and his country.

The sons of the peasants and the burgesses make up the great body of the clergy, and the *popes* are accused by travellers of ignorance, drunkenness and immorality; these accusations are generally exaggerated, and seldom rightly applied. The maxims of the Greek church are as unfavourable to the diffusion of knowledge, as they are conducive to the growth of superstition, and although the priests are imbued with the spirit of their order, they are not without many redeeming virtues.

The Russian priesthood is almost as widely different from the catholic as it is from the protestant clergy; indeed another order of the same sort is not to be found in Europe, and it is on account of its singularity, not unworthy of notice. The marriage of a priest is not only lawful, but indispensable according to the maxims of the church, which takes in the true and literal sense, the famous passage of Saint Paul, and rejects the ingenious but false interpretation of the Romanists. A Russian priest cannot be ordained before marriage, and he is not permitted to espouse a widow or any one guilty of a flagrant crime. If his wife dies, he must resign his living; ^f the bishops of the diocese can, in extraordinary instances, authorize him to continue it, but such acts are irregular, and only justified by the necessity of the case. The secular priest thus deprived of his cure, enters into a convent, and becomes a *hieromonach*.^g It is from these dismal retreats, where penance, fasting and prayer are strictly enjoined, that the bishops and archbishops are chosen. The priests or popes are much respected, nay, many of them are venerated by the peasantry. Their influence is founded on their superior knowledge; they only read the literary and scientific journals published in Russia, and consequently it is from them that information and new discoveries in agriculture and the arts are communicated to the people. The popes as fathers of families have worldly interests, to which the catholic priests, from the opposite nature of their institutions, are supposed to be strangers. A clergyman educates one of his children for the church, another is bred to arms, a third is sent into the navy, and some distinguished naval officers are the sons of curates. The connexion, on the other hand, between the secular

^a "Corvées." This word, which signifies the labour due by a vassal to his feudal lord, is always translated by statute labour, although its meaning is very different.—P.

^b "They are subdivided into serfs of the empire, of the domains, (des *economats* et des *postes*.)"

^c Annual capitation tax.

^d "Droschki."

^e Clarke's Travels, I. c. V.

^f The death of their wives does not now prevent them, as formerly, from officiating as priests, though they are not allowed to marry a second time. R. Pinkerton.

^g Ἱερομοναχοί.

priesthood and the monks, renders the former more venerable in the estimation of the people. The austere and simple manners, the unfeigned charity and godly lives of several archbishops, are cited, in order that others may be roused to imitate them. The dignitaries of the Russian church are now desirous of cultivating their talents and acquiring knowledge; their inferiors are eager to follow their example, and the indiscriminate censure of travellers is no longer applicable to most of them.

It is difficult to give an impartial account of the Russian nobility; the degrading vices, the scandalous anecdotes and the unfavourable opinion, which almost every traveller has formed of that class, are apt to bias our judgment. But these strangers are not impartial, and their contradictions are so apparent that we cannot place much confidence in their statements. Thus, one writer calls them "sharpers and pickpockets," another laughs at "their credulity and simplicity," a third observes "a Scythian ferocity in their manners," and a fourth discovers "the abject servility of the Neapolitans." That the hideous character made up of such opposite qualities must be fabulous, is at least some consolation in contemplating it. We ourselves have known very worthy Russian nobles, and one of them has been kind enough to communicate his opinion on this important subject.

"The Russian nobility," says a well-informed member of that body, "has had the double misfortune of remaining long under a despotic yoke, and of possessing at the same time an arbitrary power. The privileges of the nobles were not defined before the time of Alexander, and their legal existence commenced at the same recent period. Little attention is at present paid to the enactments of government in the provinces, and the neglect arises from the nullity or venality of tribunals, from the fact that a thousand acts of oppression may be committed, which are never heard of in the capital, and from a criminal indulgence to those who transgress the laws by which the protection of the people might be otherwise ensured. These defects in the body politic are the causes of many vices in the individual members. Many noble families live the greater part of the year on their estates, and in the midst of their serfs; their children receive rarely a regular education; the universities are ill attended, and too far removed from many parts of the empire. The great majority of the young nobles enter into the military career, and are satisfied with the superficial attainments which fit them for their profession. The nobles of other countries are not so numerous, and they participate in the advantages of civilization; the rule is reversed in Russia, there is a whole people of nobles without the means of improvement. Their moral or intellectual inferiority is therefore the inevitable result of imperfect institutions.

"Catharine permitted the introduction of foreign books, and that act tended more than any other to diffuse a taste for letters among her people. But Paul had hardly ascended the throne, before the Russian empire was intellectually isolated from the rest of the world. Priests and censors were stationed on all the frontiers, and they adhered to the strict terms of their commission. The booksellers gave up their agents in other countries, and if any ventured to import a new work, it was at the risk of capital punishment, or of enjoying always the *free air of Siberia*. It happened at the same time that every letter, of which the police had the least suspicion, was opened at the post-office. Few

strangers were suffered to remain in the empire, and the young Russians, who studied in Germany, were obliged to return within a given time, under pain of confiscation and perpetual exile. All the preposterous ordinances of a foolish tyrant were early abolished by Alexander. The young prince was anxious to enlighten his people, an improved system of public instruction was adopted, and the sanguine Russians predicted a new era in the history of their country. But the government was suddenly alarmed by suspicions, imaginary dangers and strange insinuations. The sage advisers of the czar suspended the new enactments, lest the revolutions which agitated the rest of Europe, might extend to Russia. As if it were not true that whatever tends to increase the knowledge, and improve the condition of the people, tends also to promote the safety and security of the state.

"The love of intrigue, and the factious spirit of the courtiers, the cause of frequent revolutions, which retarded the progress of improvement, were repressed during a long and prosperous reign. Few nobles were involved in these crimes; the immense mass of the Russian nobility remained far from the pleasures and cares of a court, and we believe, if sufficient allowance be made for the disadvantages against which they had to struggle, that an impartial judge might be more apt to admire them for their bravery, loyalty and honour, than to condemn them for failings to which all men in the same situation are equally liable.* The indolence of the officers in the different garrisons is the source of many vices, and perhaps the greatest evil to which the empire is exposed."

These observations are well calculated to correct the erroneous statements of travellers, and to destroy many of the prejudices which have been formed against the Russian nobility. Whatever has been said against their indolent habits, their passion for gambling, their frivolous conversation, and their custom of sleeping in the daytime, is inapplicable to those who can obtain any useful occupation; even the nobles that never leave their government, are gradually improving. The slave is not so often menaced with excruciating and unlawful punishment, and his lord is no longer degraded below the level of humanity by debauchery and drunkenness. It cannot indeed be denied that the toilet and the dance have greater charms to a sensual and lively race like the Slavonic, than to a contemplative people like the Germans; but the social amusements of the Russians are refined by the influence of the fair sex. Travellers generally qualify the unlimited hospitality of the same people by the adjective *barbarous*; still those who know the climate and the localities must be convinced that their hospitality is not a proof of vain and prodigal magnificence, but of social and benevolent customs.

The Slavonians of Novgorod, as well as those of Kiow, were soon scattered over a very large territory, and the people had not sufficient time to form many dialects; at least we know of no others than those which took the names of these two chief towns, and at a later period, of *Weliki* and *Malo* Russian. These dialects differ from each other only in the pronunciation and in some grammatical peculiarities. The dialect of Moscow is formed from that of Novgorod, but it is more harmonious; it is the language of Russian authors, among whom might be cited eloquent writers, mo-

* "In proportion to their numbers, there is less of ambition, servility and selfishness, and more of loyalty and honour, among the Russian nobles, than in any other class similarly situated."

ralists and poets, but nothing great has hitherto been achieved in philosophy or science.

These two branches of the Russian nation resembled each other in their ancient superstitions. Kiow was the real Olympus of the Slavonic mythology; we observe in that worship, as in the superstition of the Finns and Lettonians, a general personification of natural agents, but not, as in the more profound system of Scandinavian Odinism, an assumption of a contest between a good and evil principle. Simple, rude and wholly material, the Slavonic mythology is made up of many divinities and genii. *Perun*, the god of lightning and thunder, the dispenser of the harvests, the regulator of the seasons, and the supreme master of the gods, is evidently the *Perkun* of the Lithuanians, and the *Perendi* of the Albanians or ancient Illyrians. Thus there must have been some resemblance in the ancient superstition of nations now far removed and widely different from each other. But *Perun* had little in common with the other divinities. *Morskoi-Tsar*, or the king of the sea, is imperfectly known; we are even ignorant of his real name. *Znitsch*, the living fire, was adored at Novgorod, and it is remarkable that his name like that of *Schiva* may signify the destroyer.^a Many of the deities are allegorical beings of no very mysterious nature. *Korsch*, the Bacchus of the Slavonians, was crowned with a garland of hops. *Lada* or beauty, was the mother of *Lel* or *Lelo*, desire, and also of *Polelia* or love, from whom is sprung *Did* or *Dziat*, the genius that protects children. It is ridiculous to seek the proofs of a profound philosophy in these simple fables. Some doubts exist concerning *Led*, the god of war, and *Koliada* or *Koleda*, the god of peace; according to a different hypothesis, they were the divinities of summer and winter. *Dazebog* lavished the treasures that are concealed under the earth. *Kupalo*, the goddess of fruits, was honoured with processions,^b and *Wolos*, the guardian of flocks, punished those who violated their oath. *Pogoda*, the god of fine weather and spring, was crowned with blue flowers, and soared on azure wings above the rising plants. *Simzerla*, a young goddess with a girdle of roses, whose breath was fragrant as the lily, was beloved by *Pogoda*. The icy garments, the hoar-frost mantle, and the snow crown of *Zemergla*, explain her attributes. *Tschernoi-bog* or the black god was the reputed author of death and every evil; sacrifices were offered to conciliate his favour, and his pity was excited by lugubrious songs. Many inferior genii roamed on the earth; the *Rusalki* or green-haired nymphs haunted the rivers; the *Leschie* resembled satyrs,

they could diminish or add to their stature. The serpents adored in Lithuania and Prussia, were worshipped by the Russians; they were the *Demovie-Duschi* or familiar spirits of the houses. We have omitted to mention *Kikimora* or the goddess of dreams, the *Kotki* or the spirits of night, and *Polkan*, who was represented as a centaur, and styled by some authors, the Slavonic Vulcan.^c

The above enumeration of the Slavonian divinities accords with the statement of Procopius, an author that lived in the sixth century. "The Slavi and Antes,"^e says that writer, "adore a single god, who commands the thunder, and governs the universe; to this being are sacrificed bulls and different victims. They have no doctrine concerning destiny, but the sick and dying vow offerings in the faith of purchasing health. The rivers are sacred and inhabited by nymphs and spirits, that often foretell future events."^f

We observe, in the above passage, the principal traits of the Slavonic mythology, as it is represented by national authors. It is vain to look for the traces of a dualism transported into Russia from the east, or to follow the subtleties of German writers, who can discover an opposition between the powers of light and darkness, in *Bielbog*, the white god, and *Tschernoibog*, the black divinity, that has been already mentioned. The image of *Bielbog* covered with blood and flies, indicates his subordinate rank in the ancient and truly national system of the Slavonians on the Dnieper. But that system was not founded, like the Edda of the Scandinavians, on the belief of two adverse principles; no mention is made of the fabulous contests between the good and wicked gods, which ended in the defeat of the former. These notions were too profound and too gloomy for the Slavonic race. Such a doctrine, if it was ever acknowledged in their mythology, must have been introduced by strangers, particularly the Goths, who were long the chiefs and tyrants of the Slavonians.

The eastern Slavonians or Russians had few temples, and their religious ceremonies were not accompanied with much pomp before the time of Wladimir, the last heathen sovereign. That prince opposed Christianity, collected the idols, and adorned the temples, which he demolished after his conversion. But the Slavonians had their holy places in thick forests, where the priests and the augurs were concealed from the profane multitude. The Dnieper and the Bog were the sacred rivers of the Kiovians, and the Wolchowa of the Novgorodians.

^a *Zniszcze* is a Polish verb, which signifies to annihilate.

^b "Bonfires."

^c Hlinka, *Drewniaia religia*, &c. Mittau, 1814. Kaiserow, *Slaviansk Mithologia*. Moscow, 1807.

^d "The name is written *Volcan*, by some authors."

^e Σκλαβηνοι και Ανται, *Slavoni et Ante*. Procopius.—P.

^f Procopius, *De Bello Gothico*, l. III. c. XIV.

^g Σεβουσι μεντοι και ποταμους τε και νυμφας, και αλλ' αττα δαιμονια και θηουσι αυτοις απασι τας τε μαντειας εν τανταις δη ταις θηουσις ποιουνται. Procop. loco citato, in *Corp. Histor. Byzantin.* t. II. p. 132.—P.

BOOK CXI.

EUROPE.

*Europe continued. European Russia. Seventh Section.
Lithuanian Provinces.*

IT remains for us to describe the former Lithuanian provinces, and to complete our account of the Russian empire. These provinces form a separate section; their inhabitants and the ancient *Pruczi* made up a branch of the Wends, and their religion and dialect were so different from the other tribes of the same people, that they were long considered a distinct race. The learned Gatterer supposed them the descendants of the ancient Sarmatians, an opinion which we adopted and developed in a work on the subject;^a but we have since ascertained, from a more accurate knowledge of the Lithuanian language, that the hypothesis must be abandoned, or at all events greatly modified.

The Lithuanian and Russian traditions are apparently contradictory, or at least, they are of a comparatively recent date, and throw no light on the origin of the people. Kwi-alowicz, the historian of the Lithuanians, says that an Italian colony landed on the coasts about the year 900. The country was partly civilized by these foreigners, who introduced the great number of Latin words, that are still used in the Lithuanian language. The names of the illustrious exiles are recorded; they were *Palæmon Libo*, *Julian Dorsprungo*,^b *Prospero* and *Cæsar Colonna*, *Hector* and *Ursino Rosa*. Several kings were sprung from them, and they ruled over Samogitia and Lithuania Proper. *Ziwibund*, one of these monarchs, devastated Russia in 1089, another prince of the same name defeated the Poles a century afterwards, and *Ringold*, who died in 1240, was king of Lithuania, Masovia, Polesia, Czernigovia^c and other Russian provinces, Samogitia and Courland. The possessions of the Lithuanians, according to the Russian chronicles, were confined in ancient times to Courland, Samogitia and a narrow territory on the east of the last country. Nestor, the most ancient historian of Russia, mentions *Littwa* in his list of the provinces, and *Polock* or *Polotsk* in the number of the towns which prince Oleg freed in 907, from the tribute that had been paid to the "Greek emperors." *Polock* was in the last years of the tenth century, the residence of Rogvold, whose daughter Rogneda was sought in marriage by Wladimir the Great. The princess having refused her consent, Wladimir made war on her father, destroyed the capital, put the king and his two sons to death, and then obtained the hand of the captive Rogneda. The same monarch repudiated his wife, but not until she had born him several children. Polotsk was by that time rebuilt, and Rogneda and her eldest son Isaslaw were permitted to reside in it. The town and the principality, which comprehended the whole of Lithuania, as far as the Niemen, and

the greater part of Livonia, were ceded to the princess by Wladimir. Isaslaw and his descendants governed the country, until the dynasty became extinct in the thirteenth century. The grand duchy of Lithuania was then formed, and Ringold was the first who took the new title, in 1236. The genealogical annals of Russia (*Rodoslownie*) make Ringold the descendant of the ancient sovereigns of Polotsk, but that assertion is not confirmed by any evidence. The grand dukes of Lithuania became in time masters of Polotsk and all the Russian towns in the ancient principality.

Whether these obscure traditions be admitted or rejected, it is certain that the two chronicles accord from the time that Ringold extended the possessions of the Lithuanians.

After more than one revolution, *Vittenes*, a native of Samogitia, obtained, about the end of the thirteenth century, the title of grand duke, and left his states to his son *Gedemin*, who built Wilna and made it his residence. The same sovereign defeated Stanislaus near Kiow, took his capital, and became, says Nestor, great prince of Russia. *Jahellon*, his grandson, who is better known by the name of *Jagellon*, offered his hand to queen Hedwige, the only daughter of Lewis, king of Poland and Hungary. The prince promised at the same time to embrace Christianity, to convert all his people, to unite Lithuania to Poland, and to reconquer the provinces wrested from the crown. These generous offers were very pleasing to the Poles, who sent a solemn embassy to the grand duke. Jagellon took the name of Uladislaus, after his baptism at Cracow in 1386; he then married Hedwige, and was crowned king of Poland. The prince returned the following year to Lithuania, converted several thousands of his subjects, founded the bishopric of Wilna, and regulated ecclesiastical discipline. Uladislaus conferred on his cousin Witold or Alexander, the title of grand duke of Lithuania, in 1392, but its junction with Poland was not thus retarded, for the king himself retained the sovereignty of the duchy. The union between the two states was confirmed in 1401, by an act of the diet assembled at Wilna. The grand duke took Samogitia from the Teutonic order in 1408. A second diet was held in the small town of Horodlo in 1413, and the Lithuanians were declared liable to the same taxes, and subject to the same laws as the Poles. The arms of the two nations were united, and the grand dukes of Lithuania were appointed by the kings of Poland. It was also enacted that the Poles and Lithuanians should jointly elect a king in the event of the sovereign dying without children or lawful heirs. The alliance concluded in 1413, was renewed in 1499, and, to render the leading article more explicit, it was added, that the Lithuanians should not elect their duke without the con-

^a Tableau de la Pologne, 1807.

^b Dorsprungo is evidently a Gothic or a German name. ^c Tchernigow

currence of the Poles, nor the Poles their king without the consent of the Lithuanians. The knights of the sword^a ceded to the king of Poland, as grand duke of Lithuania, that part of Livonia which still belonged to them in 1561. The new duke of Courland then became tributary to the Polish crown. The Poles and Lithuanians held a diet at Lublin in 1569, and it was enacted that the respective countries formed one state or an elective monarchy, and that the right of election was vested in the two nations. The sovereign obtained the double title of king of Poland, and grand duke of Lithuania. It was also decreed that the two people should have the same senate, and that deputies should be elected by both nations;^b the alliances and wars of the two states were declared to be common. The inhabitants of the kingdom and the dutchy paid their proportion in maintaining the auxiliary troops; in short, the government of the two countries was in every respect the same. It was made imperative by the laws of 1673, 1677 and 1685, that every third diet, with the exception of the elective, coronation and convocation diets, should be held at Grodno in Lithuania.

It was thus, by many repeated attempts, that the princes of the *Jagellonic* dynasty accomplished an union between two nations equally warlike and equally independent. But Lithuania, though joined to Poland, retained always its distinct character. The nobles only adopted the manners of the Poles, and spoke their dialect. The great majority of the inhabitants never changed their customs or language, and the Samogitian peasants continued in the enjoyment of their personal freedom. Besides, the people in Lithuanian Russia, or the inhabitants of Witepsk, Mohilew, Meislaw, Minsk, Novogrodek and Brzesc, spoke the Rusniac, and adhered to the tenets of the Greek church. Thus, while Poland was more than once dismembered, the people in these provinces were always disposed to separate from a nation with which they had never been identified. It is also well known that they refused to join the insurrection of 1812, or to declare themselves in favour of the French.

The official divisions, with the exception of Witepsk, which has been already considered, are, 1st, the government of Mohilew, or the south of White Russia, 2d, the government of Minsk, which includes the west of White Russia, the south-east of Black Russia, and the greater part of Polesia, 3d, the government of Grodno, or the remaining part of Polesia and Black Russia, and the south of Lithuania, or of the province^c of *Troki*, 4th, the district of Bialystock, or the ancient Polachia, 5th, the government of Wilna, or the north of Lithuania and Samogitia.

There is little in the present state of these governments, which is likely to interest the reader. We shall therefore chiefly confine our attention to the ancient provinces and the national character of the people. *Samogitia* is called *Szamait* by the natives. The whole territory is not large, but it is well wooded; the land consists of a rich clay, and yields immense harvests of flax and hemp. These plants arrive at greater perfection than in any other part of Russia.^d Bees swarm in the woods, and the honey and wax are not inferior to any in Europe. Herds of the elk and the urus wandered formerly in the forests, and there are still too many bears, wolves and other wild animals. The large

snakes that frequent the woods were worshipped by the ancient Samogitians, a superstition which is not yet wholly abolished.^e

The horses are small, and the oxen are not large, but both are of a hardy race, and there are a great number in the country. The husbandmen cannot be induced to give up their light wooden ploughs the iron plough has been even supposed to be an instrument of evil omen. If the corn crops sometimes fail, it must be imputed to the imperfect system of husbandry. The seed is generally put into the ground about three weeks after Pentecost, and such is the heat of summer that it is commonly ripe in less than two months. The grain is cut in the morning and in the evening, and the reapers repose in the middle of the day.

The towns in Samogitia are too insignificant to require a minute description. *Miedniki*, *Rosienie* and a few others are peopled by a thousand inhabitants. *Kieydani* is the only one which contains 5000 souls. The dwellings are long and narrow cottages, built with the trunks of trees, the intervals between which are filled with moss, bark or straw. The roof tapers to a narrow aperture, from which the smoke escapes. The fire is placed in the middle of the dwelling; the men and women remain in one extremity, and the other is occupied by the oxen, horses, pigs, goats and sheep. These animals, it may be readily believed, do not shun the approach of man; indeed, so great is the familiarity which a common residence inspires, that they frequently make free with the food of the two-legged inhabitants. The same simplicity or rudeness is observable in the dress and furniture of the people. Their shoes are made of the bark of trees, and their wooden carts are joined together without any iron; it is not customary to grease the wheels, and a creaking noise announces at a distance the coming of their vehicle.

The country appears to be peopled by two distinct classes of inhabitants; the first are a tall race of men, probably descended from the Goths or Wends, who settled in the province at a very remote epoch; the others are short but stoutly made, robust and hardy like the Lettonians. The Samogitian women marry commonly between twenty-four and thirty, while those in White Russia, according to the statement of a very intelligent traveller,^f are often marriageable at the age of ten. The higher orders in Lithuania and Samogitia, says the same writer, are as much distinguished by their chastity, as the Russians are notorious for the want of that virtue.^g It is certain that small bells were at one time attached to the dress of the Samogitian girls, a precaution which was intended to prevent them from leaving any place without apprizing their parents or their sage and elderly relatives. The ancient marriage ceremonies were not confined to the province, but used by the Courlanders, Lithuanians and Prussians, and some of their customs were not unlike those of the Greeks and Romans. Two friends of the bridegroom carried away the seemingly reluctant bride from her father's house. She was led on the wedding day three times round the fire place of her future husband; it was then customary to wash her feet, and with the same water that had been used for that purpose, the bridal bed, the furniture and all the guests were sprinkled. Honey was put to her lips, a significant cere-

^a "Chevaliers porte-glaives," sword-bearers, knights of the cross. See p. 520 of this volume.

^b "— and that their deputies should occupy the same chamber."

^c "Waiwodat," palatinate.

^d Starovolski, Polonia, p. 66. Rzaczynski, &c.

^e Joh. Lasicius, de diis Samogitarum, p. 55.

^f Herberstein. See Pistorius, t. I. p. 151.

^g "The Lithuanian and Samogitian females are as chaste, it is said, as the Russian females are the contrary."

mony, by which she was admonished to abstain from domestic strife. Lastly, her eyes were covered with the nuptial veil, the attendants conducted her to all the doors in the house, she knocked at each of them with her right foot, and wheat, rye, oats, barley, peas, beans and poppies were scattered around her. The priest who diffused these emblems of abundance, told the bride to continue steadfast in her religion, and assiduous in the discharge of her domestic duties; these virtues, though no apparent connexion subsists between them, were supposed equally effectual in repelling the evils of poverty. When the ceremonies were ended, the bride sat down to a feast, and joined afterwards in the dance; her partners were permitted to cut off adroitly one or two locks of her hair, and young girls conducted her to the marriage bed.^a

The Samogitians contended long against the Teutonic knights, and gained personal freedom by their valiant resistance. They adopted Christianity with great reluctance, and that religion was mixed even in the sixteenth century with their ancient superstitions. *Auxteia visa gist*, the name of their supreme god, is derived from the Icelandic or Gothic. An Icelander of the present day would say *Haugsta visa geist*,^b to indicate a supreme and all-wise being. *Perkunos* was the god of thunder, a divinity not widely different from the *Perun* of the Slavonians. *Zemienik*, the tutelary deity of their country, was adored at the end of harvest, and a sacred fire was kindled on the summit of a hill in honour of *Pargni*, the god of the seasons. Many plants, trees and fountains were considered holy, and the *Givoite* or sacred serpents were worshipped by all the inhabitants. One god presided over bees, another over geese, many more over different animals, and the care of swine was committed to *Kremata*. Girls sacrificed to *Waisgantho*, the god of flax and hemp; the person who performed the office of priestess, had to stand on one foot, and if she supported herself for an instant on the other, it was thought a bad omen of the future crop. A festival was instituted in honour of the dead. The simple and credulous Samogitians built a cottage in the thick recess of a forest, and a table was placed in it, which was every year covered with viands, and surrounded with chairs. The shades were solemnly invited to leave their graves, and to partake of the dishes that were prepared for them.^c

Other honours were paid to the deceased; as soon as a man expired, the relative dressed the corpse in costly apparel, put it on a chair, drank its health in beer, and sung couplets, of which the following is a literal translation:

“Alas! why did you die? Had you not enough to eat and drink? Alas! why did you die? Had you not a good wife? Alas! why did you die? Had you not oxen, horses,” &c. &c.

The attendants at the funeral rode on horseback, and brandished drawn swords in the air; the evil spirits were thus prevented from approaching the body. When the dead were deposited in the grave, it was usual to lay beside them some pieces of money, together with a small quantity of bread and beer; if the person was a woman, a bunch of thread and a few needles were placed within her reach. The widow repaired to the tomb of her husband, and wept over it thirty consecutive days at sunrise and sunset. The other relatives of the deceased met at dinner on the third,

sixth, ninth and fortieth days after the funeral. The deceased and other spirits were supposed to be present at these silent and mournful parties, and when the last of them was over, a priest rose up, swept the house with much gravity, and exclaimed, “O souls, you have eat, you have drunk; now fly, now fly.”

Lithuania Proper is a very level country; the greater part of it is covered with sand, and intersected with fens and marshes. Ferruginous ochre is found in all the peat mosses, and it yields forty parts of good iron out of every hundred. Copper pyrites and petrifications, many of which resemble the roots of trees,^d are very common. Large and small blocks of granite, and pudding stones or conglomerated masses of different rocks mixed with white, red and different coloured quartz, are scattered over the sandy districts. The same country abounds in the remains of marine animals, such as madrepores, and the rare coral of Gothland. Large pieces of yellow amber may be mentioned among its productions. These facts are sufficient to excite the curiosity of naturalists, and it is to be regretted that we are not already in possession of a detailed physical map of the whole Sarmatian plain.

The humid climate of Lithuania is subject to oppressive heat and to extreme cold, which seldom continue any length of time. But three or four days of a Lithuanian winter proved fatal to the remains of the French army, that escaped the Russian sword, and fled from the ashes of Moscow. The country is still covered with immense forests, where bears, wolves, wild boars and beavers are found in thousands. The urus appears not only to have diminished in number, but to have degenerated in size and strength. The ordinary trees are the resinous pine, the common oak and the elm. A great quantity of potash is every year exported from the province. Much honey is obtained, and the natives make it into *lipiez* or white hydromel, and *malinietz* or raspberry hydromel. The pastures are excellent, the cattle are better than those in Russia, and the wool is of a finer quality. Although large districts are well adapted for the culture of corn, buckwheat appears to be the most common crop.

Such are the natural riches of the country, but the industry of the inhabitants does not correspond with the liberality of nature. The best lands are uncultivated, the finest hay is suffered to decay on the meadows, and from the negligence of the rural authorities, whole forests are sometimes destroyed by fire. The country is infested with Jews; hence the cause that the interest of money is seldom less than ten per cent., although every article of consumption may be obtained at a very moderate price. The same people monopolize all the commerce, and the corn is bought by them before it is in ear; though assiduous and persevering, they are too numerous to amass wealth. The population in the government of Wilna amounts to 1,700,000 inhabitants, and no fewer than 100,000 are Israelites, all of whom are only amenable to their own *kahals* or tribunals.

The *Niemen* or the largest river in the country is navigable, and its course is tranquil, but it discharges itself into the Curisch Haff, a Prussian bay; thus commerce is shackled, and the articles exported from the province are subject to oppressive duties. The Wilia or the second river in the country falls into the Niemen.

^a “Le soir, les jeunes filles lui coupent adroitement la chevelure pendant qu'elle danse, et la conduisent au lit nuptial en la battant.” Lasicius, p. 56.

^b Literally, the highest wise spirit.

^c Lasicius, p. 50.

^d “There are many petrifications in black agate, all of which resemble the roots of pines.”

There are still several wealthy families in the ancient Polish nobility, among others, the Radziwills, the Sapiehas and the Oginski, but their splendid palaces are surrounded by wretched cottages. The Lithuanian peasantry differ little in their habits and manner of life from the Samogitians, and are probably the descendants of the same people; but the former have mingled more with the proper Slavonians. "The Lithuanians," says a physician, who visited the country, "resemble the Poles and the Russians, although they are even less advanced in civilization than the inhabitants of these nations. Struggling against poverty, oppressed by slavery, their appearance indicates their degraded condition. The country is humid and marshy, but intermittent fevers are of rare occurrence, plica is not so common as in the rest of Poland, and it appears from a number of observations, that nine persons out of ten among the lower orders are never afflicted with that loathsome disease. The proportion among the higher classes is as one to ninety or a hundred. Erysipelas, itch and scrofula are common diseases; vaccination has not yet been introduced."^a

The Lithuanian peasants wear a woolen mantle, and many of them merely a sheep skin, above a coarse shirt. Their shoes are made of the bark of trees, their carts of elm, and the different pieces are joined together without any iron. The most flexible branches are plaited, and used instead of bridles and harness.^e

This poor and oppressed people still speak that ancient dialect, which, from its connexion with history, has given rise to much discussion.

The Lithuanian language is spoken in Wilna, Troki and Grodno, in Samogitia, and in Eastern Prussia from Memel to Gumbinnen and Insterburg. We have given our opinion of it in a separate work,^d but from paying too much attention to the difference rather than the resemblance between it and the Slavonic and the Wend, we supposed it distinct from the one and the other. We committed also the same error as the learned Gatterer, who applied the name of *Sarmatian* to the language and the people that spoke it. Thunmann discovered many Slavonic, Finnic and Gothic words in the Lithuanian dialect; but that circumstance is not sufficient to account for the formation of a language, which in the indication of physical objects, is regular and complete, in the expression of the sentiments, ingenious, and in its relation to a particular mythology, wholly original. We believe that it was the ancient language of the *Venedæ* or Wends, the *Galindi*, *Sudavi* and other tribes that were called *Pruczi* at a later period. It was probably a very ancient form of the Slavonic, which was afterwards connected with

the Gothic. We may call it the Proto-Wend to distinguish it from the Wend, that was introduced in the tenth century by Slavonic tribes on the banks of the Oder and the Elbe. It retains probably the most ancient and melodious form of the Slavonic primitives, freed from the frequent consonants and harsh sounds in the Polish, and terminating in sonorous or liquid letters, like the Greek and the Latin. But, independently of these roots, there are many that may be considered Gothic or Scandinavian; at all events the resemblance between them is obvious, still the analogy may be attributed to the common origin of all the Indo-Germanic tongues. It might be instructive, according to the one or the other hypothesis, to trace its connexion with different languages, particularly the Icelandic and the Mæso-Gothic of Ulphilas.^e The grammatical structure is not less remarkable than the elementary part of the Lithuanian language. It possesses the same articles and declensions as the Greek,^f some of the Slavonic conjugations, several peculiarities of the Russian pronoun, and the same facility as the Russian, in the formation of compound words, diminutives and *verba prægnantia*. Lastly, it unites the two qualities of harmony and flexibility; the one renders it well adapted for poetry; the other for different kinds of versification.^g

Wilna, the capital of Lithuania, is built at the confluence of the Wilia and Wilenka. The town, if the two suburbs of *Antokolla* and *Roudaischka* be included, covers a great extent of ground. The population is equal to 40,000, of whom five thousand are Jews. A mosque, a synagogue, one of Lutheran, three Russian, one Calvinistic and thirty two Catholic churches, are the different places of worship, and consequently three-holy days^h are observed every week. All the sects live in peace with each other; indeed they are more intent about trading than spiritual concerns. We may also mention a theological seminary for the education of Greek priests, a school of navigation, which in our opinion, is ill placed, an astronomical observatory, and lastly an university, that may one day hold a high rank among the northern schools. It was founded by the bishop Valerian Protasowitz, and its privileges was confirmed by Stephen Bathori and pope Gregory XIII. It fell afterwards into decay, but it was restored in 1781 by the patriotic Stanislaus Poniatowsky; since that time it has been called the *Schola princeps* of the great dutchy of Lithuania. The emperor Alexander increased its funds, established several new professorships, and sent a great addition to the library. *Kowno*, a town of four thousand inhabitants, is situated at the junction of the Wilia and the Niemen; and *Troki*, which contains 3500, is built near a marsh that never

^a "Inoculation is still unknown." As the work quoted was published in 1792, this can have no reference to vaccination, but to variolous inoculation. Dr. Jenner did not publish his discovery till 1798.—P.

^b Lafontaine, *Dissertations chirurgico-médicales relatives à la Pologne*. Breslau, 1792.

^c Rzaczynski, p. 205.

^d *Tableau de la Pologne*, 1807. chap. xv.

^e The relation between the Slavonic and the Lithuanian, which is derived from the Proto-Wend, may be illustrated by some examples. *Brat*, a brother, (Polish;) *brolis* (Lithuan.) *Brzezina*, a birch wood; *berzinas*. *Zivot*, life; *givenimas*. *Kniec*, a slave; *kiemionis*. *Krol*, a king; *karalus*. *Wladza*, power; *waldia*. *Skladny*, elegant; *suktotinis*. *Skromny*, modest; *romus*. *Przeplyna*, I swim across; *perplaukiu*. It is a laborious and difficult task to trace the resemblance between the Slavonic and Proto-Wend roots; but it is the means of obtaining new proofs of the connexion that subsists between many ancient languages. Thus *zemlia* and *ziemie* (land) have little analogy with *dschiami* in Sanscrit, but they are almost identical with *ziame* in Lithuanian. The Sanscrit word, *pria*, beloved, resembles the Lithuanian *priatel*, and is very different from the *frijun* of Ulphilas. *Tava* in Sanscrit, and *tawas* in Lithuanian, are the same. *Apu*, water, in Sanscrit, which is common to the Zend, Persian and Kurd,

is expressed by *oupe*, in Lithuanian. *Akschi*, the eye, is *aks*, in Lithuanian. The relation of the same language to the Mæso-Gothic and Icelandic-Scandinavian may be illustrated by the following examples. *Saule*, sun; *saul*, (Ulphilas;) *sol*, in Scandinavian. *Vandou*, water; *vand*, idem, in Danish. *Ougnis*, fire; *orn*, a chimney or hearth. *Baltas*, white; *Balder*, the god of light. *Tarnas*, a servant; *terna*, a Swedish word for a domestic. *Medis*, a tree, in Lithuanian; *meithr*, idem, in Icelandic. I shall cite one out of many remarkable hellenisms: *Eymipesciomis*, I go on foot, is the same as *Eimi pezos*, in Greek. Many words have no apparent analogy with those of the same signification in any other language, as *dangous*, heaven, *arklis*, a horse, &c. &c. Latinisms are common: thus *senas*, old; *jungas*, a yoke; *giaras*, dear. It follows from these and other examples, that the Lithuanian language forms a very important link in the chain of the Indo-Germanic tongues.

^f "It offers an image of the Greek articles and declensions." This implies rather an analogy than a positive similarity.—P.

^g "Its melody renders it as proper as the Russian for poetry, in which it readily imitates the ancient metres."

^h "Days of rest," sabbaths—the Mahometan *Friday*, the Jewish *Saturday*, and the Christian *Sunday*.

freezes.^a *Grodno* on the Niemen was peopled in 1790 by about four thousand individuals, and nearly a fourth of them were Jews; but its palaces are now desert, and its silk, velvet and cloth manufactories are ruined. The last Polish diet was held at *Grodno*, and Russian soldiers compelled the deputies to put their names to the treaty, by which the division of their country was sanctioned.^b *Friedensberg* or the Mount of Peace is surrounded by a forest on the banks of the *Wilia*, at the distance of a mile and a half from *Kowno*. A convent on its summit is the residence of twenty-four hermits, that belong to the order of *Camaldolites*. The edifice was erected in 1674 by *Christopher Pacs*, chancellor of *Lithuania*, who expended more than 800,000 crowns on the work. The vaults and cupola of the church are painted in fresco, and the walls are adorned with many original paintings of the best masters. The *Pacs*^c are descended from the *Florentine Pazzi*, who having in vain contended against the *Medici*, left *Tuscany*, and settled in *Poland*, where they attained the highest dignities, and even attempted to dispute the sovereignty with the great *Sobieski*. The Italian style may be easily recognised in all the public buildings which were raised by these illustrious strangers.^d

In that part of *Lithuania* which is now added to new eastern *Prussia*, there is a tribe of *Tartars*, who have their mosque at *Wiskupie*. The republic of *Poland* made over to them two *starosties*, each of which yielded a revenue of 10,000 florins. It was at the same time declared unlawful to restrain them in the free exercise of their religion.^e

Lithuanian Russia included part of the countries which the grand dukes conquered from the *Russians* in the thirteenth and fourteenth centuries. The palatinates of *Polock*, *Witepsk*, *Mcislaw* and *Minsk*, made up *White Russia*, and the palatinate of *Novogrodek* was denominated *Black Russia*. The origin of these names is uncertain; some authors assure us that the inhabitants of the one province dress in white, while those of the other confine themselves exclusively to dark attire. If their derivation be admitted, it follows that *Black Russia*, should have comprehended the whole of *Little and Red Russia*, *Volhynia* and the *Ukraine*. It is well known, however, that the name was never applied to so great an extent of territory. Another hypothesis has been advanced, which we consider more probable; the words *white* and *black*, it is said, are used, as in the *Tartar*, *Turkish* and other languages, to denote *free* and *vassal*. *Black Russia* therefore, was first conquered by the *Lithuanians*, and the *White Russians* retained their name after they were subdued. The other explanations which have been proposed, are connected with physical objects, as snow, forests and lakes.

The forests and marshes in these vast provinces are more extensive than any in *Lithuania*. *Sigismund the First* was obliged, during his expedition against *Smolensko*, to construct 340 bridges and causeways within the distance of twenty-four leagues.^f The state of the country has not been much improved since his time. Modern travellers avoid the road through *Polock*, and the following account is given of the one from *Smolensko* to *Minsk* by a *Frenchman*, who travelled on it a few years ago. "The road,"

says that writer, "is often impassable, the villages are mean and the peasants are poor. Most of the houses are inhabited by Jews, who are perhaps the most filthy people of any in Europe. Men, women, children, cattle and poultry are all lodged under the same roof. We have often been constrained to share the only apartment in the dwelling with that numerous and select society. Spirits may be had every where, wine is not uncommon, and not very dear, but provisions can only be obtained in the towns, which are thinly scattered; indeed most of them might pass in other countries for wretched villages."^g

The cultivated land in *White Russia* produces rye, barley, oats, wheat, turnips and leguminous plants. Excellent timber abounds in the forests, and the animals that frequent them, are bears, elks and wolves. The stagnant and running waters teem with fish, and the bees, notwithstanding the severity of the climate, yield plenty of wax and honey.

Some peculiarities in the system of agriculture may be briefly stated. Wheat is generally sown in ashes. The peasants begin to cut the brushwood about the festival of *St. Peter and St. Paul*; the branches are strewed on the ground, and sometimes covered with straw. The soil remains nearly a year in the same state, and the heap is burnt in the following spring, commonly on the first warm and dry day after *Easter*. Care is taken that the fire does not penetrate into the earth, and the wheat is put into the ground after the surface is grazed with the light plough. A good soil is chosen for the purpose, and it is rendered extremely fertile by this sort of manure.^h If barley be the intended crop, all the branches in a thick copse are cut, but the trunks are not wholly destroyed. The wood which is thus obtained, is afterwards burnt in the same manner. We are thus enabled to account for the great number of half-consumed trees, that excited the surprise of an English traveller.ⁱ Winter rye is the next crop after the wheat or barley. The ground is twice tilled, and, according to an old adage, the work must be commenced after the festival of the *Assumption*, (the fifteenth of August,) and finished before the birthday of the *Virgin*, (the eighth of September.) If this rule be not strictly observed, the seed, it is supposed, is sown in vain. It is said, however, that some husbandmen, more bold than the rest, have introduced a different practice. Two parts of barley and one of winter rye are sown during the spring in the same field. The barley is reaped in autumn, and the rye which grows under its shade, is next year loaded with spikes, and appears like a luxuriant plantation, in which a man on horseback may be effectually concealed.^k

Summer rye is sown after *Easter*, barley and oats at *Pentecost*, chick peas before *St. Peter's day*, and turnips about the festival of *St. John*. The seed time is earlier in *Black* than in *White Russia*.

The people are ignorant and poor. A stranger saw many *White Russian* peasants arrive at *Riga* a few years ago. Their clothing was sheep skins, and although they conducted boats laden with corn, they suffered much from famine. The poor slaves slept on the ground or in hovels constructed with the remains of old planks; having sold their cargo and their boats, they returned in the same state

^a "Rzaczynski and Starovolski, Polonia, p. 35.

^b The treaty of 1793, by which the division of Poland is said to have been sanctioned.—Tr.

^c The name is pronounced as if it were written *Patz*.

^d *Tableau de la Pologne*, p. 207.

^e *Cellarius*, p. 280. *Laws and Constitutions of the Diet of 1767*.

^f *Rzaczynski*, *Hist. Nat.* p. 159.

^g *Fortua de Piles*, t. V.

^h *Alex. Guagnini*, *Elzevir's Polonia*, p. 263.

ⁱ *Coxe's Travels in Poland*, vol. I. p. 103.

^k *Guagnini*, *Elzevir's Polonia*, p. 286.

that they came, and restored to their lords or their lords' stewards the whole price of the goods, in ready money.^a

The towns in these provinces are not numerous. *Mohilew*, the metropolis of a Russian government, is the only large one; it contains 16,000 inhabitants; its situation on the Dnieper is favourable to trade, and it shares with Witepsk the commerce of White Russia. The one carries on a trade with Riga, the other with Cherson and Odessa. The communications have been rendered easier by the canal of the Beresina, which unites the river of the same name (a feeder of the Dnieper) with the Duna, and consequently the Baltic with the Black Sea. *Mstislaw*, a town of five thousand souls, and *Dubrowna*, which contains 8000, are situated in the same government. A colony of Moldavians or Walachians, who migrated to these regions for some cause that is now unknown, are settled at Uschatky near the town of Tcherikow,^b and also in the neighbourhood of Mstislaw and Propoisk. They speak a Walachian dialect mixed with Slavonic and Lithuanian words.

The town of Minsk, although the capital of a government, contains only 3000 inhabitants. We may mention the small village of *Studianka*, which is famous from the passage of the Beresina, where a few French soldiers made for themselves a road through the Russian army.

Slonim, one of the largest towns in Black Russia, is peopled by five thousand individuals. It is situated in Grodno, and was at one time the metropolis of that government. *Sluck* was once the capital of a dutchy about a hundred and twenty-five miles in length;^c the dukes, though nominally tributary, were in reality independent,^d but their possessions were ceded to the family of Radziwill. The celebrated Nicholas Christopher Radziwill, to whom we are indebted for a book of travels,^e built a large castle, with fortifications, that have been since destroyed by the Swedes and Russians.

The ancient province of Polesia extends on the south of Black Russia, and the soil is in a great measure concealed under the shade of thick forests, or covered by the water of lakes, rivers and marshes. The country is almost inaccessible the greater part of the year. The fens with which it is inundated, resemble a sea, and it received probably on that account the name of Polesia. Fish, honey, timber and iron are among the most common productions of the pro-

vince. If a canal of no great length were cut from the *Muchawiec* (Mughavietz) a feeder of the Bug, to the *Pina* which falls into the Pripetz, boats might sail from the Vistula to the Dnieper, and a new communication, a most important outlet for the commerce of the country, might be formed between the Baltic and the Black Sea. But Count Oginski united formerly the two seas by a canal that joined the *Szczara* (Chtchara) to the Pripetz. The first of these rivers flows into the Niemen, and the second into the Dnieper. The large marshes in the district of Pinsk were partly drained by the canal, which commenced on the *Szczara*, at eight Polish miles from Slonim, crossed the lake *Sviznica*, and terminated in the *Iasiolda*, which enters the Pripetz at seven miles from the town of Pinsk.^f Thus the distance was not greater than eight miles, and the country on both sides belonged to the count. The author of that great undertaking had the satisfaction of seeing in 1787, a boat laden with a hundred tons of salt, sailing between Cherson and Königsberg.^g The canal is now obstructed with sand, and though no longer used for commercial purposes, it still serves to drain the marshes.

Brzesc, which is surnamed *Litewska* or Lithuanian, to distinguish it from a Polish town of the same name, is not so much known from its fortified castle on the Bug, as from its *Jewish Academy*, which is frequented by Israelites from every country in Europe. *Pinsk*, the largest town in Polesia, is surrounded by marshes, and its population does not exceed 4000 inhabitants. The Jews have a synagogue, and the trade of the place consists in Russia leather, which is said to be the best of any in Poland. The ancient Jesuits built a college, and founded a dispensary in this desert region. The last institution has survived its founders, while those who were ensnared into popery, are returning by thousands to the Eastern church.

The province of Bialystock, or the western limit of the vast empire of the czar, corresponds partly with the ancient Polachia. It was peopled in the middle ages by the *Jatwinges*, a people that are considered, perhaps incorrectly, a branch of the Jazyges. The town of Bialystock, the most modern of any between Warsaw and Petersburg, contains a population of 6000 souls, and is adorned with a fine castle and several public buildings.

^a *Züge zu einem gemalde*. Second part, p. 118. 1799.

^b Campenhausen's Travels in Russia.

^c "50 Fr. leagues."

^d "— presque souverains, quoique feudataires."

^e Travels to Jerusalem (in Polish,) translated into Latin by Thomas Tretter (*Ierosolymitana Peregrinatio illust. Pr. N. Ch. Radziwil*, 1601.) He made a vow, during a severe fit of sickness at the age of 26, to perform

a pilgrimage to the Holy Land. This he accomplished in 1584, at the age of 35, and on his return published the book of travels above mentioned.—P.

^f A Polish mile is equal to two English miles and a half.*

* The short Polish mile is 3.45 English miles, and the long Polish mile 4.6. *Ed. Encyc.*—P.

^g Sirisa, a Polish author. See *Nord Littéraire*, &c. par M. Olivarius, 2^{me} cahier, p. 154.

BOOK CXII.

EUROPE.

Europe continued. Russia concluded. Origin, rise and resources of the Russian empire.

A philosopher contemplates without prejudice the rise and fall of nations. But it is difficult to divest oneself of the political fears and jealousies that agitate the people and the ministers of kings, or to view with indifference the colossal power of Russia. The impatience of cotemporaries is natural; we are too anxious to discover or imagine causes that may tend to accelerate the dissolution of an empire, which threatens the destruction of Europe. Thus, the distant future is often confounded with the chances of the morrow. A revolution takes place in the palace, a civil war follows, and the frail tenure by which Russia holds all her immense provinces is instantly perceived. Let not wise governments be too secure, or overrate the chances of such events. Who knows that the fall of so great an empire may not be followed by calamities more disastrous than those which accompanied its rise, or that the civil convulsions of such a state are not more dangerous than its repose? Russia has probably new dominions to acquire before it reaches the fatal term of human greatness, and when that term arrives, the rest of Europe may share its fate.

How have the czars united under their sceptre one half of Europe, and a third part of Asia? What was the origin of their power, by what means was it acquired?

The rise of Russia, whatever be the common opinion on the subject, was not sudden, modern, or of an ephemeral character. It was the work of ages and of nature. The seeds of its greatness were sown in the darkness that envelops the origin of the Slavonic race, in the age that the Slavonians increased on the Carpathian mountains, and the savage Greeks assembled round the lyre of Orpheus. That numerous people bred in the forests of Sarmatia, were almost unknown to the Greeks and Romans, and appeared at last in southern Europe under the command of the Goths, their masters, and under the standards of the Huns, their conquerors. Many migrated into different countries long before they were mentioned in history. Freed at last from the double yoke of the Goths and Huns, the Slavonians or Slovenes were afterwards called by their own name. They formed a mass of homogeneous tribes from the Elbe to the Borysthene, some of which increased in their native land, and others were subdued by the Germanic race. But the most eastern branch, that of the Antes, or Russians, extended towards the east, and was strengthened by the descendants of the ancient *Roxolani*. It invaded the uncultivated forests inhabited by the Finns and other people of Scythian origin, founded Kiow, Novgorod, Susdal, Wladimir and Moscow, and peopled and cultivated all the fertile plains

as far as the Don and the Wolga. They did not enter of their own accord on the career of conquest, and it was the bold and restless genius of the Varagian Scandinavians, that revealed to the Slavo-Russians the greatness of their future destiny.

Scandinavia was agitated for many ages by civil discord, yet colonists migrated from it almost without interruption, but these men were not so formidable from their numbers as from their courage and warlike habits. They were bold adventurers, who, banished for the crimes or excesses which they committed, sought an asylum or rather a new theatre for their exploits, in the uncultivated countries in the north and east of Russia. They often united under chiefs well qualified to command such bands. Their captains were princes, the sons of the sovereigns, who ruled over the petty kingdoms into which Scandinavia was then divided. A family quarrel, an amorous adventure, an unfortunate duel, forced them to quit their country and remain in exile. Such leaders and such soldiers were not intimidated by any obstacle, and indeed they never met with any among the Slavonic tribes, which, although numerous, were neither organized nor concentrated, but dispersed over an immense extent of territory. The *Varagians* or warriors founded without difficulty their military capitals at Old Holmgard, (probably Kolmogori on the Dwina,) at New Holmgard or Novgorod, at Aldeiguburg on the Ladoga, and at Izborsk, Pleskow, Polotsk and many other places.^a The eastern Slavi and more particularly the Russians were thus commanded by warlike chiefs, and they began from that time to know and regulate their force. Covered with breast-plates, and armed with sharp swords, they easily routed the Slavonians in the interior, who were then defended by wooden bucklers. They undertook different expeditions in their numerous fleets of boats, (a characteristic trait of a Scandinavian people,) and attacked Kiow and Constantinople. Their armies were subdued or weakened on the Bosphorus, but other warriors opened new communications on the Wolga and its large tributary rivers. The Finnic and Hunnic tribes in these countries submitted to the Varagians, who became Russians in the same way as the Norman Scandinavians became Norman French. Thus, long before the invasion of the Mongol Tartars, a number of powerful kingdoms, independently of the republics of Novgorod and Pleskow, had been founded in central Russia, under the modest title of grand duchies or principalities. The invasion of the Asiatic hordes had all the character of a military occupation. It produced no national change; it effaced merely the traces of the Scan-

^a See the article, Scandinavia.

dinavian democracy, and gave rise to despotic dynasties. When Russia had shaken off the Tartar yoke, its own resources became apparent, and it has ever been the real Russian people, scattered from Lemberg, Halicz and Kiow to Wologda and Woronesch, that has formed the nucleus of its power. The rapid aggrandizement of the empire under the two Iwans, is not to be attributed to new conquests, but rather to reprisals gained from the Tartars, which were effected without difficulty, for it is an identity of language, customs and institutions, not the soil or the name of the master, that constitutes a nation or a country. The last reprisals were wrested in our own age from the Poles. The Ukraine, Podolia and Volhynia were in ancient times a part of Russia, and the Austrians are well aware that eastern Galicia is only another name for Red Russia. It is by reprisals that the population of the empire has been increased, and additional territory is all that it has gained by its conquests.

The distinction between the nation itself and the countries conquered at different times by different sovereigns, ought to form the basis of all political reasoning on the subject of Russia.

We observe in the first or in the nation, an unity and concentration surpassing far that in Germany and France, a population sufficiently compact for the nature of the country, and an industry wholly national, though not in an advanced state.

On the contrary, we observe in the conquered countries, a diversity of interests, a scanty population, few natural resources, extensive foreign establishments, and a spirit of colonization or vassalage.

The geographical, military and commercial relations of the empire correspond with its foreign conquests, which are thus dependant on the central provinces.

We shall now proceed to estimate the successive additions made by the czars.

Epochs.	German square miles. a	Approximate population.
Under Iwan the First in 1462,	18,494	6,000,000
At his death, in 1505, (Junction of Novgorod, Permia, Tchernigow, Severia, &c.)	37,137	10,000,000
At the death of Iwan II. in 1584, (Conquest of Kasan, Astrakan and Siberia.)	125,465	12,000,000
At the death of Michael the First in 1645, (Conquests in Siberia; territory ceded to Poland.)	254,361	12,000,000
At the accession of Peter the First in 1689, (Kiow retaken, &c.)	263,900	15,000,000
At the death of Peter I. in 1725, (Conquests on the Baltic, in Persia, &c.)	273,815	20,000,000
At the accession of Catherine the Second in 1763, (Conquests in Asia.)	319,538	25,000,000
At her death in 1796, (Countries conquered from the Turks; reprisals and conquests in Poland.)	331,810	36,000,000
At the death of Alexander in 1825, (Conquests in Poland, Finland, Moldavia and Persia.)	367,494	58,000,000

The principal elements of the internal resources of Russia were united under the two Iwans and Alexis Michaelowitz. The empire extended in 1588 from Smolensko to the lake Baikal, and comprehended within its vast limits, fertile countries, populous towns, inexhaustible mines, a numerous, frugal and hardy people, attached to their god and their czar. The name of "the great lord, the czar

and autocrat of Russia," was seldom repeated by diplomatists, and it held no conspicuous place in court manifestoes. The eastern religion and a national language written in Greek characters were the means of isolating the Russians from the Latin and German nations. Another cause tended to produce the same effect; the czars, with very few exceptions, chose formerly their wives from their own subjects, a custom which was common as early as the eleventh century. Lastly, the Muscovites, from their Asiatic manners, were compared or confounded with the Turks and Tartars. It must not however be inferred that well-informed statesmen were ignorant of the real power of the Russian empire. Michalon, a Lithuanian noble, wrote the following memorable words to Sigismund the Second, about the year 1550.

"The Muscovites and Tartars surpass us in bravery, temperance, frugality, and all the virtues connected with the stability of empires. The Muscovites profit by our effeminacy, and give us their furs in exchange for our gold. We know more about luxury and refinement, but the Iwans and the Basils have taken our fortresses, one after another. These princes did not establish their power by gold, but by iron, and by introducing the rigid discipline and the strict order that prevail among the Tartars. The laws are dispensed with gravity, and not, as in Poland, during a feast or debauch. The nobles are not permitted to mutilate or kill their slaves. No man can be condemned without the public sentence of a judge. While the Polish soldiers are fighting in the taverns, the Muscovites remain under arms, and guard the frontiers."

The ambassadors of different courts, and among others the learned Baron Herberstein, were well aware of the increasing importance of Russia. The English having opened a communication with Archangel, foresaw the advantage of establishing commercial relations with that immense country, from which the Hanseatic merchants had derived so much wealth by the route of the Baltic. Denmark, instigated by the counsels of Poland, excited the czar against Sweden, and some very curious documents connected with these calamitous negotiations, are still extant. The French, Italian and Spanish diplomatists were less connected with Russia, and had not so much cause of alarm at its growing power. But the unknown giant waxed strong and issued at last from his native forests.

Peter the First organized, after the European manner, the forces that his ancestors had left him, and the victory of Pultawa, by which the judicious plans of Charles the Twelfth were frustrated, established in Europe the reputation of the Russian arms. But of all the conquests made by Peter the Great, one small spot only served to increase the resources of his empire. Foreign capital was diffused through the country by the maritime commerce of Petersburg, and it was employed in improving land, clearing forests and working mines. The political ramifications of the empire were afterwards extended by the matrimonial connexions between the Russian dynasty and the reigning families in Germany. The inhabitants of Petersburg adopted the manners, nay even the costume of other countries; superficial observers were dazzled by their

* A German mile is equal to $3 + \frac{1}{3}$ English miles,* consequently one German square mile is equal to $11 + \frac{1}{3}$ English miles. The above table may therefore be converted into English square miles by multiplying the different numbers by $11 + \frac{1}{3}$.—Tr.

* The German geographical mile, or 15 to a degree, is 4.6 English miles; the long German mile, 5.75; the short German mile, 3.9 nearly. *Ed. Encyc.—P.*

vain imitations, but little improvement was made in the arts, because they were founded on the precarious basis of prohibitions and bounties; still they may perhaps have shed a lustre over the capital, the only place visited by travellers.

Although Peter the First had the merit of establishing a European system in Russia,^a the influence or importance of the empire was not sufficient to place it on a level with the other great states before the time of Catherine the Second. Philosophic observers discovered the weakness of the government; the frequent revolutions that happened in the court, threatened the destruction of the monarchy, and betrayed the secret of the supposed reform in the national character, so gratuitously attributed to Peter the Great. The murder of Alexis in 1718, the sanguinary executions of 1724, (the greater number of which are not mentioned by Voltaire,) the massacre of a whole family^b in 1730, the twenty thousand exiles during the administration of Biren in the reign of Ann, the assassination of Sinclair, a Swedish courier, in 1739, the many victims mutilated or maimed, and the violent deaths of Peter the Third in 1763, and of Prince Iwan in 1764, exhibit a picture of anarchy to which no parallel can be found in the eighteenth century. Politicians, jealous of Russia, then observed the signs of its approaching dissolution. The empire was said to be in a state of decay before it had arrived at maturity. Agreeable delusion! consolatory prophecy for short-sighted statesmen! The dynasty was never secure; the nation remained in its primitive force.

The uncertainty of the succession, occasioned by the culpable negligence of Peter the First, was the chief cause of all the revolutions in the palace. The Russians censured justly the arbitrary enactment of their sovereign, by which his successors were entitled to leave the crown to a foreigner; a privilege in direct opposition to the ancient laws of the nation, which, conformably to the experience of all ages, established but did not regulate in express terms the principle of hereditary succession.^c The empire was rendered more unstable by two other causes, that have escaped the notice of historians and political writers. The despotic power, usurped by Peter the Great, was neither founded in the laws nor ancient customs of Russia. Every ukase, before the year 1701, commenced with a formula, that acknowledged the rights of the boyars. *Weliki gospodar ukazal, y boyari prigoworelli*; the great lord has ordained, and the boyars have consented. The nobles were never unmindful of their ancient privileges, and they forced the empress Ann to submit to terms by which the government was changed in 1730, into a limited monarchy. More than one individual aspired to the throne, or thought that he had the best right to it, for the reigning family was an indirect branch of the house of Romanow, which was only connected by females with the house of Rurik. The Dolgorouki attempted to accomplish their ambitious projects in 1729; they as well as the Repnins, were sprung from the grand dukes of Russia, and the ancestors of the Gallitzins and the Kurakins were the grand dukes of Lithuania.^d

Exposed to a change of masters, to an insurrection of the nobles, and an intestine war, Russia was less powerful

after the time of Peter the First, than it had been under the reign of Iwan the Second. Had a great prince then filled the throne of Sweden, Poland or Turkey, the equilibrium might have been restored in northern and eastern Europe.

The military glory acquired by Marshal Munich did not long redound on the Russian arms, and the seven year's war was a proof that the immense multitudes which Russia could bring into the field, although brave, were destitute of moral force, and not formidable under the command of native generals.^e The navy was chiefly composed of foreign officers, particularly English and Danes, but these admirals were ill provided with ships and seamen. The Finlanders were not then subdued, the forests in the Polish Ukraine did not then belong to Russia, and it was discovered in the reign of Elizabeth, that the oaks in Kasan were not durable, and ill adapted for ship-building.

The influence of Russia, before the long and brilliant reign of Catherine the Second, was confined to political intrigues in Poland and Sweden, intrigues, by which these old bulwarks of Europe were slowly undermined. A solitary exception may be mentioned; it was the interference of Russia in the war of the Austrian succession, an event that proved not the power and credit of the court of Petersburg, but rather the weakness and decrepitude of the court of Versailles. It was not the advance of a Russian army of 36,000 men, that hastened the treaty of Aix-la-Chapelle. M. Bestuchef brought matters to a conclusion by threatening to bring forward a second army, although he was well aware that the second army was neither complete nor in a state to march. That example of the good effect which a mere shadow of power may produce, has been since too often imitated by the Russian and many other cabinets.

It was during the war against the Turks in 1770, and the division of Poland in 1773, that Russia first acted the part of a great nation. Important conquests were gained, but the designs of Catherine might have been foreseen by the other European powers. It was in the same reign that the fleet formed by Peter the First, and almost wholly neglected by his successors, sailed round Europe, ruled in the Archipelago, and threatened the subjugation of Egypt. Native Russians, such as Romanzow, Panin and Suwarrow, then first acquired military glory, and although Suwarrow is the only one of these generals, who was not indebted for all his victories to his aid-de-camps, Russia was ranked among the great military nations. Catherine knew much better than Peter the First, how to purchase partisans, and their panegyrics shed a lustre on her success; she knew well what advantages might be derived from the delusions of a brilliant court, where luxury and gallantry reigned. All the women and men of letters became her friends; their vanity and effeminacy, the prevailing vices of civilized nations in the eighteenth century, were flattered. The empress made a more profitable appeal to the avidity of princes, an avidity that was all powerful in the European cabinets, at the time that shallow politicians calculated the strength of states by the number of their inhabitants. The division of Poland was the masterpiece of her policy. It was not merely the provinces

^a "— of introducing Russia into the European system," or of giving it a place in the political system of Europe.—P.

^b The Dolgorouki.

^c Schläzer's Historical Researches on the fundamental laws of the Russian nation, p. 21. (German.)

^d Haven's Account of Russia, vol. I. chap. xiii. (Danish.)

^e Marshal Munich was, by birth, a Danish subject.

added to the empire; as soon as the law of nations was invaded, each great power might adopt with impunity, and on the most frivolous pretences, the system of usurpation and conquest. Thus, Russia has never concluded a treaty since that epoch without acquiring additional territory, sometimes, as in that of Tilsit, at the expense of her own allies, nor has the same state ever made the least sacrifice for the general interests of Europe,—prudently abandoning the maritime rights, which at its instigation, Denmark defended with a heroism worthy of better success.

Russia acquired the ports on the Black Sea, and the forests in the Ukraine; but we admire the plausible pretexts that were employed to obtain them. The empress said to the *dissidents*^a in Poland—We come to protect you; the Poles believed her. She said to Austria—We have given you Galicia, an equivalent for the loss of Silesia; the Austrians became her allies. The *old lion* at *Potsdam*, not then in his dotage, was deceived by the mean lure of an additional province. Literary, philosophical and religious associations were enlisted in the war against Turkey, and although that state is so essential to the equilibrium of Europe, philanthropy became subservient to the ambition of Catherine. New geographical arrangements were substituted for the ancient law of nations, the political dissolution of Europe necessarily followed, the enemies and rivals of Russia expected to share the spoils, and the empress made them her accomplices.

Alexander adopted in the early part of his reign, a better and a wiser system; he desired not to add to the immense extent of Russia, but, conformably to the wishes of the wisest patriots, to direct the energy of his people in improving the resources of their country, its different kinds of culture, and its many valuable productions. He was anxious to derive some advantage from the vast conquests of his predecessors, to connect them with the ancient provinces, to attach the inhabitants to their common country, and to form a national character out of so many conflicting interests. If these noble intentions were soon given up, the cause is too well known; it was the alarm excited by revolutionary and imperial France, that invaded in the short space of ten years, more countries than Russia had done in ten centuries. Impelled at last into the same career, Alexander made two conquests, most important to Russia, and most dangerous to Europe. The coasts of Finland have supplied the navy with good seamen, and Poland has been changed into an army of observation in the centre of Europe. There is no end to conquests; one province demands another; Sweden, Norway, Copenhagen and Hamburgh will be necessary to complete the naval stations on the Baltic, and the Hungarian mountains and the Silesian fortresses to form the military frontier of Poland. Such limits may seem *natural* to another Iwan, and wherefore may not one appear on the throne of the czars? What power can now resist an empire, that extends its sway over a twenty-eighth part of the terrestrial surface, and includes among its subjects a fifteenth part of the human race?

It has been shown that the mean term of the population

^a The Protestants and members of the Greek church in Poland, were so called. They were at first tolerated, but during the interregnum that preceded the election of Poniatowsky, a decree was issued by the diet, by which they were, in a great measure, forbidden the free exercise of their worship, and totally excluded from all civil and political privileges. This intolerance was one of the leading causes of the partition of Poland.—P.

is confined to the central zone, and that it augments rapidly towards the east, as far as Irkutsk, and in the southern provinces. The conquered people are rather diminishing than increasing; therefore the real Russians make up the annual addition to the number of inhabitants, an addition, according to the lowest estimate, not less than half a million. The proportion of one in every hundred, is not great in a country like Russia, where the rich but uncultivated lands are extensive, where forests, fishing and the chase, as well as the ordinary arts and trades, afford the sure and easy means of subsistence. It might appear, however, from more correct statistical researches, that different local accessions should be partly attributed to the frequent migrations from one government to another. Russia contains at least 150,000 square leagues of territory,^b that might be rendered as productive as Germany, and might maintain about one hundred and fifty millions of inhabitants. Can the czars wish to conquer, when they see the germs of powerful empires in their dominions?

The great extent of country renders it difficult to estimate all the products of labour. Statistical tables, even on the supposition that they are kept with the utmost care, can only exhibit approximate results. General conclusions relative to such a mass of provinces must be necessarily incorrect; to obtain any thing like accuracy, the objects compared must be reduced to a very small number, or confined within narrow limits. The rearing of cattle, by which term we include every variety from the camel of the southern steppes to the reindeer of the arctic zone, forms still a great source of wealth. All the wandering tribes, and those connected with them, pay great attention to their horses, and the same care is generally bestowed on their oxen; but the Russian gives himself little concern about these useful animals. The rich and abundant pastures in the Ukraine, enable the inhabitants to export their large oxen and swift horses; but it is only on the estates of a few nobles, that any progress has been made in that department of agriculture. The same remark is applicable to the rearing of sheep, for the improvement which we have observed in some provinces, is also the effect of individual and local efforts. It is certain, on the other hand, that the quantity of butcher meat, ordinary wool and leather of every sort, exceeds greatly what is consumed in the empire. The preparation of *yufst* or Russia leather, is an art peculiar to Russia, and the supply of fine wool for the different manufactories is increasing. The agriculture of so vast a country is subject, independently of the changes produced by labour, to the variations consequent on climate. New lands are brought into tillage, cultivation extends in every direction, and its progress is only obstructed by the difficulty of obtaining outlets, a difficulty that is most severely felt in the most fruitful provinces. It appears from the official tables, which have been only published for the years 1802, 1803, and 1804, that the annual excess of grain, (chiefly rye and wheat,) varies in the whole empire, from forty-three to sixty-four millions of *tshetverts*, or from eighty-four to a hundred and twenty millions of bushels.^c That quantity is made up by the addition of the surplus produce in dif-

^b Seven hundred and fifty thousand English square miles. Tr.—[The number of leagues in the text is that of the original, but the kind of leagues is not specified.—P.]

^c Each of these bushels is equal to $2\frac{3}{4}$ imperial bushels.—Tr.

ferent provinces, and does not determine the total exportation, of which the value was calculated in 1805 at nearly forty-five millions of roubles. According to the same official tables, it is only in the governments of Petersburg, Moscow, Archangel, Wologda and Permia, that there is always a great excess of consumption. There is in ordinary years, an excess of production in the Siberian governments, and in the provinces of Orenburg and Astrakan. The extreme abundance commences at Kasan and Nischnei-Novgorod, extends across Penza, Tambof, Orel and Kursk to Katerinoslaw, is diffused throughout Little Russia and the Polish Ukraine, becomes less general in Lithuania, and disappears gradually on the shores of the Baltic. May not that natural fertility have been observed by some tribes from the remotest antiquity? It was from these countries that the Slavonic and Finnic hordes, conducted by Gothic kings, marched against the Roman empire; but the sterile Carpathian heights and the arid Scythian steppe formed an impassable barrier to ancient geographers.

The mines, particularly those on the Ural mountains, were worked at a very ancient period, but it is only in modern times that the Russians have applied themselves to that branch of industry. Gold, silver and copper are more abundant in the Asiatic governments, or along the last declivities of what is still called the great central tableland. The Russian Peru extends from Perm to the country beyond Irkutsk, and the government, far from following the singular opinion of a French traveller, who advised the Russians to retire to this side of the Jenisei, may allege specious reasons for including within the limits of the empire all the Belur and the Great Altai. Iron, the most useful of the metals, is more common, or at least it is more generally wrought on the European side from Perm and Orenburg to Wiatka and Wladimir, and from Nischgorod to Tula and Tambof. The cause must be attributed to the demand for the article in the most populous governments, and to the proximity of different outlets. The total produce of the copper mines is greater than 200,000 pounds,^a and that of the iron mines is about six millions.^b Russia possesses another treasure in the numerous salt lakes and marshes in the Siberian steppes, and in the country to the north of the Caspian Sea. The quantity of salt obtained throughout the empire, about twenty years ago, was not less than twenty-six millions of pounds, and it increases indefinitely with the population.

The produce of the fisheries and the chase is very valuable; furs and other articles are sold for three millions of roubles;^c the value of the different fish amounts to fifteen millions, and half of that sum is obtained from the stations on the Wolga and the Caspian Sea. Although several provinces are ill supplied with wood, the forests are in general inexhaustible. It appears from a calculation made by Herrmann in 1804, that there were in thirty-one governments, 8,195,295 pines well adapted for masts, and at least thirty inches in diameter, a number much more than sufficient for all the fleets in the world; but in addition to it there were 86,869,243 that might have been used in building. According to the same writer there were in twenty-two governments, 374,804

oaks, each of them at least twenty-four inches in diameter, and 229,570,427 of a less dimension. The exportation of hemp and flax, two very useful plants, amounted in 1802 to twenty millions of roubles.

The wealth derived from the different manufactures may be taken into consideration along with the natural riches of the empire. We have already adverted to the domestic industry of the Russian peasant, and his aptitude for imitation. Government has encouraged the application of that talent by abolishing monopolies, and rendering the arts and trades as free in the country as in the towns. Increased industry and activity have been the results of these wise regulations, but the people are too eager to secure prompt returns for their labour, consequently, few manufactures are carried to any degree of perfection, and the different goods are much inferior to others of the same sort in foreign countries. Every kind of leather, particularly Russia leather, jewellery, cordage, sail cloth, soap, candles and oil form exceptions to the above rule. Although the Russians have not made the same improvement in other articles, a great quantity of their own manufactures, imperfect as they are, is consumed, and the importation of foreign goods is proportionally diminished. The distillation of spirits from grain is a very important and indeed a very useful article in the Russian trade, for it is obtained from native produce, it supersedes the necessity of foreign spirits, it is sold at a cheap rate, and many millions of peasants and workmen require it in so cold a climate. It might be very difficult to calculate the quantity consumed every year, but it is certain that the revenue farmers pay annually to the crown sixteen millions of roubles for their right to the duty. *Braga* is the best beer in Russia, and its name is a sufficient proof that the art of making it was derived from the Scandinavians; some other kinds are nearly as good, and the great consumption thus occasioned, tends to diminish the use of foreign wines, which are still imported to the amount of four millions of roubles. Little attention is bestowed on the simple art of making arms and different iron utensils. Although that art has been long known in Tula, the demand is not supplied from all the works; besides various other articles, a million of scythes are annually imported; these are of a much better kind than those which are made in the country; the Russian tradesmen are satisfied if they can sell their goods, they are indifferent about their quality. The linen is not very fine, but the quantity imported is inconsiderable. The necessity of foreign cloth is not superseded by the coarse woollen stuffs manufactured by the peasants; the same may be said of cotton goods, but the importation of silk is much diminished; the raw material, the produce of the southern governments, has greatly increased of late years, and if the province of Georgia were well cultivated, it might supply sufficient silk, not to mention fruits and wine, for the whole of Russia. It may be better, instead of enumerating minutely different objects liable to daily variation, to state that the extraordinary efforts of government to extend and improve the manufactures, have been accompanied with greater success than foreigners would wish. That country appears indeed to be barbarous and wretched, where the roads are paved with the trunks of

^a Eight millions of pounds.

^b Two hundred and forty millions of pounds.

^c The value of the rouble is subject to great fluctuation; it has varied from three shillings and two pence to nine pence.—[The stated value of the

rouble is 3s. 6d. Owing to excessive issues, the value of the paper rouble has sunk as low as 9d., and for many years past has chiefly varied between 9d. and 11d. *Ed. Encyc.* The rouble is equal to 100 copecks.—P

trees, where wood smeared in pitch is a substitute for candles, where the labourers are not provided with good saws or scythes, where extensive granite quarries are neglected, and houses constructed with coarse planks.^a But if these defects be more closely examined, it may be discovered that they are partly occasioned by the great abundance of raw material, and also by the long continuance of established custom. The peasant is content with his wooden or clay cottage; he experiences no inconvenience from the use of his defective instruments. Thus, although there are many voids in civilization, government advances steadily towards that remote object, which it has proposed, namely, to have no real want that may not be supplied by its own resources. The means employed at present to ensure that great end, are the abolition of monopolies, with the exception of those on salt and spirits, the freedom of industry, which is slightly modified by distinctions that government has introduced between the different classes of merchants, manufacturers and tradesmen, and lastly, a very minute but complicated system of customs and prohibitions.

The revenues of the crown are estimated at a hundred and ten millions of roubles, or, according to others, at a hundred and thirty millions of florins, (£13,746,780,^b) but strangers have not the means of ascertaining the exact amount. It is from the revenue that the multiplied and varied expenses of government are defrayed; the salaries attached to the different offices are not great, and the sum might be more than sufficient for the purpose, were it not for the waste and abuses inseparable from the administration of so vast a country.

The revenue is obtained from the following sources: first, the *capitation*, to which the burgesses,^c all the peasants and different tribes are subject: second, *the tax on the capital of merchants*; an individual declares the state of his capital in trade, without constraint and without a judicial examination, but his privileges, commercial immunities and personal consideration depend on the sum specified in his declaration: third, *the royal domains*, a very important branch of the revenue; it comprises the *obrok* or capitation tax paid by the peasants of the crown, the rents of the lands set in lease, and the produce of the government manufactories: fourth, *the duties levied at the maritime and inland custom-houses*; the amount of the former is supposed to be equal to fourteen millions of roubles, that of the latter is not so great: fifth, *the tax on the sale of heritable property*,^d which is fixed at five per cent, and levied on houses, lands and peasants or vassals: sixth, *the monopoly on spiritous liquors*,^e from which, as has been already observed, the government derives a revenue of 16,000,000 roubles: seventh, *the monopoly on salt*; the price as fixed by the crown is thirty-five *kopeks* for the poud;^f the profit derived is inconsiderable, but the people are enabled to purchase an article of primary necessity at a cheap rate:

^a "Poutres à peine équarries," beams rudely squared. "The houses of the peasants are built of round baulks (beams) laid upon one another, and morticed together at the angles"—in short, they are the same as our American log-houses.—P.

^b "330,000,000 francs." ^c "The merchants excepted."

^d "*Propriétés immobilières*," real estate.

^e "— on the sale of spiritous liquors in public houses."

^f The *kopek* is nearly equivalent to a halfpenny. [$\frac{2}{3}$ of a penny.—*Ed.*

^g "*Le droit régulier*"—*Qu. le droit régulier*, the royal duty. *Encyc.*]

^h In 1816, the revenues of the crown amounted to 215,000,000 roubles, and in 1811, the expenditures amounted to 274,000,000. On the 1st of

eight, *the regular duty*^g on the produce of the mines, from which, according to Hupel, government obtains annually 1,800,000 roubles: ninth, *the coinage*, which although chiefly confined to copper, is profitable to the government: tenth, *the stamps and post office*: lastly, the *iassak* or tribute of furs exacted from the wandering tribes.

The expenditure cannot be more correctly estimated than the revenue; the one, however, appears to balance the other in time of peace; but it is certain that government could not carry on a long war without loans or extraordinary sacrifices. The minister of finance acknowledges a national debt of £25,000,000; a sinking fund has been formed for its extinction, and it co-operates as effectually as in the best governed states.^h

The number of troops, including the Polish army of 50,000, are one million, but there are only about 700,000 regular soldiers, and 48,000 chosen men, who form the guard of the czar.ⁱ If the extent of the frontiers on the side of Europe, the distances, the points that may be attacked, and the population of the empire, be taken into consideration, it might appear that the military establishment is not proportionably greater than in other continental monarchies. The project of changing gradually the population on the royal domains into a permanent militia, organized after the manner of the Cossacks, and under the name of *military colonies*, might give Russia the command of an almost unbounded force. Russian statesmen are doubtful if the obstacles against the execution of such a plan could be removed. The revenue might be inadequate for the necessary expense; besides, the serfs are not like the Cossacks, and their habits are widely different from those of warlike tribes.

The navy, although well organized, is much less important than the army; it is on a smaller scale, and consists only of 32 vessels, and from two to three hundred gunboats.^k The coasts of Finland and Esthonia, the nursery of the Russian navy, are peopled by good mariners, who are accustomed to petty warfare; they may command the Black Sea and the Baltic, but they are unused to the navigation of the ocean, and the Russian fleets cannot contend with others of maritime nations.

Such are the actual resources of the Russian empire; it is governed according to the will of a single individual, and his will is by law unlimited, no restraint can be imposed on it; but the emperors of the house of Holstein have more than once declared that they would wish to follow fixed laws in whatever appertains to the rights of individuals and corporations. Arbitrary enactments are partly abolished; indeed they are only enforced against the great, or courtiers less solicitous about liberty than personal aggrandizement.

The council of the empire has been instituted to render the laws and the administration less liable to change; the emperor presides over it, and the most important affairs

Jan. 1824, the whole of the public debt amounted to 20,620 roubles in gold, 91,534,318 roubles in silver, 260,628,677 roubles in paper, and 47,600,000 florins of the Dutch loan. *Ed. Encyc.*—P.

ⁱ In 1815, according to Hassel, the Russian army consisted of 422,823 field troops, 84,300 garrison troops, 1113 engineers, 13,920 invalids, and 110,000 irregular troops—total, 632,155. According to a recent statement, believed to be correct, it amounts to 677,500, exclusive of the military colonies. Of these, 80,000 belong to the imperial guard. *Ed. Encyc.*—P.

^k In 1805, the Russian navy consisted of 32 ships of the line, 18 frigates, 59 small craft, and 226 galleys (gunboats;) making a total of 355 sail. That in the Black Sea consisted at that time, of 12 ships of the line, 4 frigates, and 7 brigantines, besides small craft; in 1822, of 14 ships of the line, 10 frigates, and numerous small craft. *Ed. Encyc.*—P.

are the subjects of its deliberation, but every matter connected with the foreign policy of government is reserved for the imperial cabinet. The senate or supreme tribunal is the highest court of judicature in the empire; it may extend its cognizance over all causes, but in some decisions, an appeal may be made to the royal clemency.^a The senate is divided into eight sections, three of which are held at Moscow, and five at Petersburg; its authority might be still more salutary, if it could put an end to the corruption of the inferior judges. The holy synod watches over the interests of the established church, but its decrees are issued in the name of the emperor. The members of the Lutheran church enjoy the same privileges in Finland, Esthonia, Livonia and Courland. No restraint is attached to any form of faith, and it is the enlightened policy of government to respect acquired rights, and to confirm the privileges of provinces, towns, corporations and individuals; if any changes have been introduced, they are in general favourable to civil and religious liberty. The want of fundamental laws and social guarantees was acknowledged by Alexander, and that prince in his dying moments, meditated reforms, which any benevolent man might suggest, but which an energetic one only could put into execution.

Hassel's Table of the Population in the Russian Empire, including Poland and the vassal States, 1st January, 1823.^b

Names of the Divisions.	Square miles, fifteen to a degree. c	Population.	Number of inhabitants in each sq. mile.
Russian Empire	367,494 .02	59,263,700	161
Long. 17° 30'—222° 20' E. of London. Lat. 33° 40'—30° 10' N.			
DIVISIONS.			
A. European Russia	72,861 .31	44,118,600	606
B. Kingdom of Poland	2,293 .23	3,541,900	1,544
C. Asiatic Russia	268,339 .48	11,663,200	43½
D. American Russia	24,000	50,000	2½
POLITICAL RELATIONS.			
1. Immediate possessions ^d (Including Georgia and the kingdom of Poland.)	293,701 .93	57,681,000	195
2. Vassal provinces ^e	73,792 .09	1,582,000	21
3. Republic of Cracow (Under the protection of Russia, Austria and Prussia.)	23 .31	96,000	4,118
A. EUROPEAN RUSSIA, namely,	72,861 .31	44,118,600	606
A. Baltic provinces including,	9,023 .28	3,861,300	428
1. Government of St. Petersburg	848 .82	844,000	994

^a "The senate (*sénat dirigeant*) or supreme tribunal judges without appeal in every instance, except a few cases, which are left to the mercy of the emperor."

^b It may be seen from the critical observations on the table, that we do not adopt all of Hassel's conclusions; but, in order to enable our readers to form a correct estimate of the Russian population, we thought it best to place before them the methodical and minutely calculated table of that learned writer. It was thus necessary to adhere to his results, although neither the arbitrary divisions of Asiatic and European Russia, nor several other subdivisions, accord with our description, which is founded on physical principles.

^c Each of these square miles is equal to about twenty English square miles. Tr.—[The German geographical mile of 15 to a degree is equal to 4.6 English miles, consequently the sq. mile is equal to 21 English square miles nearly.—P]

^d Those directly subject to the emperor, and forming an integrant part of the empire. The vassal provinces are governed by their own chiefs or princes, who acknowledge the sovereignty (*suzeraineté*) of Russia.

Russia is at present divided into governments and provinces. Of the former, 36 are administered according to general laws, and 13 according to

Table continued.

2. Government of Finland	6,462 .75	1,378,500	215½
3. ————— Esthonia	323 .93	302,600	935
4. ————— Livonia	928 .62	751,000	808
5. ————— Courland	509 .42	581,300	1,142
b. Great Russia including,	43,390 .25	23,777,900	538
6. Government of Moscow	474 .23	1,337,900	2,823
7. ————— Smolensko	1,008 .68	1,325,700	1,314
8. ————— Pskow	1,045 .41	865,200	827
9. ————— Tver	1,135 .40	1,260,700	1,110
10. ————— Novgorod	2,578 .39	915,500	356
11. ————— Olonetz	3,578 .10	359,800	100
12. ————— Archangel and Nova Zembla	16,225 .52	263,100	16
13. Government of Wologda	6,867 .86	892,200	117
14. ————— Jaroslav	671 .88	1,038,100	1,545
15. ————— Kostroma	1,808 .73	1,455,500	805
16. ————— Wladimir	920 .64	1,334,500	1,449
17. ————— Nishgorod	961 .45	1,379,900	1,435
18. ————— Tambof	1,271 .33	1,422,100	1,118
19. ————— Riassan	781 .48	1,308,600	1,647
20. ————— Tula	558 .53	1,039,800	1,860
21. ————— Kaluga	395 .15	1,175,100	2,999
22. ————— Orel	849 .87	1,299,500	1,529
23. ————— Kursk	701 .66	1,649,000	2,350
24. ————— Woronesch	1,547 .80	1,445,900	934
c. Little Russia including,	4,137 .82	5,674,000	1,371
25. Government of Kiew	978 .86	1,472,100	1,503
26. ————— Tschernigow	1,189 .84	1,410,000	1,184
27. ————— Pultawa	850 .76	1,877,500	2,207
28. ————— Slobodes of the Ukraine (Kharkof)	1,118 .36	914,400	817
d. Southern Russia including,	8,772 .57	2,316,600	265
29. Government of Iekaterinoslaw	1,417 .02	826,100	583
30. ————— Kherson	1,206 .58	459,400	380
31. ————— Taurida	1,646 .47	346,200	211
32. Country of the Don Cossacks	3,611 .57	369,800	102
33. Province of Bessarabia	891 .22	315,100	353
e. Western Russia including,	7,537 .09	8,488,900	1,125
34. Government of Wilna	1,081 .26	1,357,400	1,255
35. ————— Grodno	326 .19	868,100	1,619
36. Province of Bialystock	158	224,600	1,422
37. Government of Witepsk	668 .11	934,900	1,398
38. ————— Mohilew	918 .35	985,400	1,073
39. ————— Minsk	1,832 .36	1,160,100	633
40. ————— Volhynia	1,394 .47	1,496,300	1,072
41. ————— Podolia	948 .35	1,462,100	1,542
B. KINGDOM OF POLAND (See Poland.)	2,293 .23	3,541,900	1,514
C. ASIATIC RUSSIA	258,339 .43	11,683,000	43½
A. Kingdom of Kasan	11,521 .79	5,746,250	498
1. Government of Kasan	1,123 .90	1,028,150	915
2. ————— Wiatka	2,221 .98	1,293,800	582

particular laws. The latter division includes Esthonia, Livonia, Courland, Witepsk, the Lithuanian governments, Volhynia, Podolia, Kiow, Tchernigof and Pultawa; the former, all the remaining governments in European Russia, all those in Asiatic Russia, and the country of the Tchoukitches (*Tchukitchi*). The provinces which do not form governments, and which are administered according to particular laws, are the principality of Finland, the province of Bialystock, the kingdom of Poland, the province of Bessarabia, the country of the Don Cossacks, Mingrelia, Imeritia, Georgia, Leghistan, Daghestan, Shirwan, and the Khanats of Karabagh and Tashishin. The islands in the Pacific ocean, and the American colonies, form a separate division.—P.

^e The following are the details relative to the vassal provinces.

a. Imeritia, Mingrelia, Guria	407 .16	210,000	516
b. Tcherkessia (Circassia)	1,535 .76	550,000	368
c. Awchasa (Abassia)	238 .22	60,000	252
d. Daghestan	434 .32	184,000	373
e. Shirwan	445	133,000	299
f. Steppe of the Kirghises	31,681 .13	360,000	11
g. Tchukotski	15,050	35,000	24
h. Russian America	24,000	50,000	2½

Table continued.

3. Government of Perm	5,996		1,269,900	212
4. ——— Simbirsk	1,402	.14	1,119,400	798
5. ——— Penza	777	.77	1,035,000	1,331
<i>v. Kingdom of Astrakan</i>	13,823	.03	2,598,700	118
6. Government of Astrakan	3,899	.88	222,700	57
7. ——— Saratow	4,297		1,333,500	310
8. ——— Orenburg	5,626	.15	1,043,500	185
<i>c. Provinces of Caucasus</i>	5,478	.54	1,673,500	305
9. Province of Caucasus ^a	1,585	.08	146,500	92
10. ——— Georgia (Grusia)	832	.40	390,000	373
11. ——— Imeritia, Mingrelia, Guria, Awchasa	645	.48	270,000	418
12. Tcherkessia (Circassia)	1,535	.76	550,000	368
13. ——— Daghestan	434	.82	184,000	373
14. ——— Shirwan	445		133,000	299
<i>d. Steppe of the Kirghises</i>	31,681	.13	360,000	11
<i>e. Kingdom of Siberia^b</i>	211,847	.22	1,602,000	7
<i>f. Russian islands in the Eastern and Frozen Ocean</i>	1,667	.90	11,550	7
<i>g. Russian America</i>	24,000		50,000	2 ^c
REPUBLIC OF CRACOW	23	.31	96,000	4,118

Critical observations on the preceding Table.

Population of the Russian Empire	{	According to Lichtenstein's Stat. Tab.	1819.	42,769,800
		— Crome (Uebersicht.)		45,392,283
		— Wichmann, (Darstellung, &c.)	1811.	42,265,000
		— Ziablowski ^c (Geografia, &c.)	1813.	44,909,888
		— Wsewoloiiski ^c (Description, &c.)		46,000,000

It was first shown by *M. Balbi* of Venice that these vague indications are much too low, and that to arrive at any thing like accuracy, it was necessary to make a sufficient allowance for the yearly and natural increase in the population. *M. Balbi* first developed these principles in his admirable compendium of universal geography (*Compendio di Geografia Universale*), and at a later period in his essay on the statistics of Portugal. He likewise applied them to determine the population of Russia, and after having examined the proportions between the number of births and deaths in that country, (a subject on which *Herrmann* had written many valuable articles in the memoirs of the academy of Petersburg,) he finally fixed the population for 1822, at fifty-four millions.

Hassel adhered strictly to *M. Balbi's* plan, but thought it unnecessary to mention the labours or even the name of his predecessor. The census of 1796, and those of 1783 and 1816, are the basis of his calculations, and, as an equivalent to the increase in the population, he adds for each year, one and a half to every hundred inhabitants. Although the principle is simple, apparently certain, and indeed the only one of which the application can be general, it leads sometimes to inaccurate results.

1st, It appears from the observations of *Count Bray*, that the arable land in many governments is not nearly so extensive as is generally supposed, and government believes the annual augmentation to be lower than that which is assumed in the statistical calculations.

The opinion of government is strengthened by the statements of some Russian authors. *Ziablowski* concluded that the population of *Olonez* in 1813, was not greater than 245,238; whilst, according to the census of 1783, and the increasing progression, it ought to have been equal to 329,056.

The following is a more authentic example, and one taken from a fertile government. It appears from the census of 1796, that the inhabitants of *Kasan* amounted to 763,000. Now according to the principle of proportional increase, there should have been 991,900 in 1816; but the census of that year makes the number only 943,179; consequently the difference is greater than 48,000, or more than a fifth of the supposed augmentation.

2d, There is a constant migration of Great Russians from the north to the south, along the *Volga* and the *Kama*. Some boatmen and labourers return to their native soil, but many do not, and the government in the centre are partly peopled by the inhabitants of those in the north.

The Little Russians migrate to the Asiatic provinces, and the same changes that take place in the northern governments is thus effected. The habits of the Tartars are the cause of another variation, for whole hordes, like the Tartars of the *Crimea* and *Bessarabia*, remove forever beyond the limits of

the empire. *Karaczay* calculated that the population in the province of *Bessarabia* was not less than 433,000 at the time of the conquest; at present it is not more than 315,000.

3d, It might be easily proved that every calculation relative to the governments of Little Russia must be wholly uncertain in its details, because the boundaries have been so often changed that it is impossible to derive any data from the census of 1796, and *Kiew* was the only one in which a census was taken in 1806.

The same remark is applicable to other provinces.

Lastly, There are some parts of the empire, in which the increase is greater than one and a half to the hundred. Thus *Novgorod* had, according to the census of 1783, a population of 277,427 male serfs or peasants; according to the principle of increase, there should have been an accession of 54,318 in a period of thirteen years; but the total number, as determined by the census of 1796, amounted to 356,127, and the addition was therefore equal to 78,700. *Ziablowski*, who is not guilty of exaggeration, supposes the population of *Minsk* in Russian Lithuania, equal to 1,205,200 souls, while *Hassel*, on the other hand, cannot make it by his calculation, greater than 1,160,000. If attention be paid to the dates, it may be seen from the work of the Russian geographer, that the augmentation in *Volhynia* and *Podolia* is also greater than what is assumed in the geography of *Weimar*.

It follows from these remarks that the annual increase is very unequal in different governments, and also that the number of inhabitants in many provinces is still uncertain. But the total population in 1823, is not perhaps greatly overrated by *Hassel*; one or two millions may at most be deducted from it, and, as Russia must have gained nearly that number in a period of four years, it may contain at present fifty-nine millions of inhabitants.^d

If Russia was as well peopled as Sweden, it might contain 95 millions; if its population was as compact as that of Germany, the number might amount to 210 millions, and on the supposition that the population was the same as in the Chinese empire, in which there are several vast deserts, it might exceed 432 millions. Although we make allowance for the obstacles, which depend on the soil, climate and institutions, the number of inhabitants may in less than a century be proportionably greater than in Sweden.

Table of the population of the different nations in the Russian empire.

<i>A. Slavonic nations</i>	
1. Great Russians	34,000,000
2. Little Russians	9,000,000
3. Lithuanians	1,300,000
4. Poles	5,500,000
5. Lettonians and Kures	600,000
6. Bulgarians and Servians	30,000
	<hr/>
	50,430,000
<i>B. Finnic and Finno-Hunnic nations.</i>	
<i>Finlanders (Ymes, Quenes, and Kareles,)</i>	1,380,000
Esthonians	480,000
Livonians and Krewings	3,000
Laplanders	9,000
Siriaines	30,000
Woguls	12,000
Permiaks	34,000
Tchuwashes	370,000
Tcheremisses	190,000
Mordwins	92,000
Wotiaks	141,000
Ostiaks of the Obi	107,000
Teptiars	114,000
	<hr/>
	2,962,000
<i>C. Tartar or Turkish nations.</i>	
Tartars or Turks Proper	1,204,000
Nogays and Kumuks	154,200
Truchimens	200,000
Kirghises	360,000
Khivintzes	2,500
Bucharians (Tartars)	10,500
Meschtcheriaks and Arabs	37,000
Bashkirs	140,000
Teleoots	1,000
Yakuts	88,000
	<hr/>
	2,197,200

^d "At the present time (1826,) the population of the Russian empire is at least equal to 59 millions." The translation of this volume was published in 1827, the original in 1826. The remark applies to the former.—P.

^a There is now a government of Caucasus.—P.

^b It is divided at present into the governments of *Tobolsk*, *Tomsk* and *Irkutsk*.—P.

^c These two names are written *Yablovskii* and *Vsevoljskii*, in the *Ed. Encyc. art. Russia*.—P.

D. Caucasian nations.

Georgians or Grusians	560,000
Lesghians	230,000
Tcherkesses or Circassians	190,000
Awchases or Abassians	90,000
Ossetes	42,000
Midzhigis	43,000

1,155,000

E. Teutonic and Scandinavian nations.

Germans	380,000
Swedes	56,000
Danes	1,200

437,200

F. Mongol nations.

Buriats	120,000
Kalmucks or Oeloet	75,000
Kalkas	18,000

213,000

G. Different tribes in the north-east.

Tungooses	50,000
Samoiedes	20,000
Tribes of the Jenisei (Klaproth)	38,000
Kamtchadales	9,500
Yukaghirs	3,200
Koriaks	8,000

128,700

Esquimaux.

Tchooktches	50,000
Kitaigues	3,000
Tchugatches	5,000
Konaigues	8,000
Kenaitzes ^a	4,000

70,000

American Tribes	20,000
---------------------------	--------

H. Different Asiatic nations.

Jews	460,000
Armenians	74,000
Tadjiks or Persian Bucharians	15,000
Zigeuns	10,000
Hindoos	500
Arabs	6,200
Parsees	2,000

567,700

I. Different European nations.

Moldavians	85,000
Walachians	45,000
Greeks	21,000
English, French, &c.	6,000

157,000

^a Kitaghi, Tchugatzi, Konaghi, Kinaitzi.

Table of the principal towns in the Russian empire

	Houses.	Inhabitants.
Petersburg,	9,500	305,000
Moscow or Moskwa,	10,400	190,000
Warsaw,	8,824	117,000
Kasan,	4,310	50,000
Kiew,	3,728	40,000
Astrakan	4,000	36,000
Odessa,	4,150	35,000
Tula,	3,800	35,000
Irkutsk,	2,500	30,000
Cronstadt,	2,000	30,000
Jaroslaw,	2,754	28,000
Tobolsk,	2,300	25,000
Kaluga,	3,608	25,000
Kursk,	2,340	25,000
Wilna,	3,000	25,000
Tver,	2,400	24,000
Riga,	1,687	23,000
Orel,	2,871	22,000
Orenburg,	2,866	20,000
Akmetchet,	2,000	20,000
Kharkof,	1,552	18,000
Tiflis,	3,684	18,000
Uralsk,	3,000	18,000
Neshin,	3,000	16,000
Mohilew,	2,100	16,000
Archangel,	1,933	16,000 (21,000 ?)
Tomsk,	2,274	15,000
Simbirsk,	1,400	15,000
Revel,	1,584	15,000
Woronesch,	3,000	15,000
Torshok,	1,792	15,000
Tambof,	1,800	15,000
Tcherkask,	1,916	15,000
Akermann,	2,000	15,000
Witepsk,	1,943	15,000
Wologda,	1,664	14,000
Bolchow,	1,800	14,000
Achtyrka,	1,137	12,788
Nachitchevan,	2,487	12,108
Smolensko,	1,500	12,000
Pskow,	1,486	12,000
Ustjug Weliki,	2,200	12,000
Nishgorod,	1,826	12,000 (15,000 ?)
Ielisawetgrad,	16,00	12,000
Wiatka,	2,000	12,000
Endery,	3,000	12,000
Koslow,	928	11,502
Abo,	1,100	11,300 (12,000 ?)
Mittau,	800	11,000
Wiaisma,	2,000	11,000
Penza,	1,687	11,000
Sumi,	1,238	10,495
Lublin,	1,824	10,300
Tarku,	1,080	10,000
Toropetz,	1,206	10,000 (12,000 ?)
Novgorod,	1,552	10,000
Kasimow,	1,800	10,000
Korotscha	1,500	10,000
Putiwl,	1,400	10,000
Tchernigow,	2,400	10,000
Pultawa	1,200	10,000
Kherson,	1,500	10,000
Bender,	1,500	10,000
Berdyczew	1 400	10 000

BOOK CXIII.

EUROPE.

Europe continued. Kingdom of Poland. Republic of Cracow.

THE name of Poland, although effaced from ephemeral maps and statistical tables, is not likely to be soon forgotten; it must be remembered by geographers as long as any attention is paid to natural and national divisions. The fate of Poland appears to have been fixed for some generations at least, by the arrangements made at the congress of Vienna, but before these arrangements were settled, several treaties had been concluded, broken and concluded anew. The large provinces of Lithuania and the Ukraine, which were added to Russia, are, by the religion and language of the inhabitants, more Russian than Polish. The region on the Vistula, or the real Poland, has been divided. The southern portion forms at present the kingdom of Galicia or *Austrian Poland*, which includes all the high country in the ancient monarchy; although subject to Austria, the administration is national, and the people are represented. The country in the centre, or a part of the former Great and Little Poland, makes up the *new kingdom of Poland*, which is united to Russia, under the same sovereign, but the form of government is representative, and the legislative and executive branches are in a great degree independent.^a The *Republic of Cracow* on the west; is under the protection of Austria, Prussia and Russia; and lastly, the *grand dutchy of Posen* on the north-west is added to Prussia, but its provincial assemblies are not abolished. The wisdom of sovereigns has preserved a sort of union between these states, particularly between the three first; we shall therefore endeavour to give a connected account of them, without confounding one with another.

Poland or Polska signifies a plain; the early inhabitants, like many other tribes, denominated it from the nature of the country, and they themselves were thus distinguished from the other branches of the great Slavonic race. Many examples of the same kind might be mentioned; a Chro-

^a The government of Poland is nominally independent of Russia, although under the sovereignty of the Czar. It possesses now as formerly a king, a senate, and a diet. The Czar is represented by a viceroy, in whom, and in a cabinet of ministers, the executive government resides. The senate consists of thirty members, and the chamber of representatives of seventy deputies from the provincial nobility and gentry, and of the members of the cabinet *ex officio*. The Diet consists of the senate and house of representatives; the king (*czar*) is not obliged to convoke it oftener than once in two years, its sanction being necessary only for certain measures, for the imposition of taxes, the passing of new laws, or the abrogation or alteration of old ones. Its sittings cannot extend beyond a fortnight.—P.

^b Michov, Chron. Reg. Pol. c. II. Dlugossi, lib. I. p. 22 and 45. Cromer, Polonia, p. 34; Elzev. 2d edit.

[The present article is chiefly derived from our own work on Poland (Tableau de la Pologne,) which was published in 1807, but the edition is now exhausted. Although cited by Hassel among the *valuable* works that he had consulted, it is very imperfectly analysed in the geography of Wei-

wat or Croatian means a mountaineer, and the Po-Morzi or Pomeranians signify a people in the neighbourhood of the sea.^b

The greater part of former Poland is an immense plain that extends from the Baltic to the shores of the Euxine, or at least to the small chains that cross the basin of the Dnieper on the south of Volhynia, and unite to the south of Lemberg with the first declivities in the Carpathian range. These declivities, though low, appear anew near Zamosc, between the Bug and the San, and also near Kielce and Konskie in the country between the Vistula and the Pilica. Low hills and headlands^c can only be discovered throughout the vast region, which extends to the north of these limits. Lithuania, Courland, White and Black Russia, Polesia, Polachia, almost all Great Poland, Pomerelia and the whole of Prussia are in most places covered with a deep layer of sand, which is seen on the plains, and the heights along the course of the rivers. It is of a white or light colour in the interior, and comparatively dark near the shores of the sea.^{d e} But clayey and marshy lands are scattered in many parts of the sandy belt; a clayey ridge traverses Samogitia,^f and another, which is higher and intersected with lakes, forms Little Lithuania, or the south-east angle of ducal Prussia. The land in the interior of Courland is strong and rich;^g the same kind of soil, the same succession of plains, hills, marshes, and innumerable lakes, the same transition from sand to loam and from loam to clay, are observable in Pomerania, Brandenburg, Lower Saxony and partly in Denmark.^h These Sarmatian and Germano-Cimbrian plains seem to rest on a foundation of granite, detached peaks of which rock rise in some places above the surface. Blocks of granite, quartzose pudding-stones and crystals are scattered in many districts; amber, petrifications, agates and madreporas are generally found at no great distance from them.ⁱ The circular cavities near Birza in Lithuania, and the one that serves as a basin for the lake

mar. The substance of it is not to be found in Wybicki or any modern Polish author. Our information is derived from the early Polish authors, and from original communications; we are indebted to the more recent authors for few additional facts.]

^c "Mondrains," a marine term for a small isolated hill or hillock, corresponding to *hummock*, as used in the S. States. See Dict. de Trevoux, t. 6.—P

^d Guettard, Mémoires de l'Académie des Sciences, 1762.

^e "It is whitish in the interior, and black or reddish near the shores of the sea."

^f Alex. Guagnini, p. 45. vol. I. of the Script. Rer. Pol. by Pistorius.

^g Busching, Geog. t. I. p. II. p. 283. The author visited the country.

^h D. Setzen. See the quotation in Hof's Mineralogical Magazine (Germ.) vol. I. no. IV. p. 404.

ⁱ "Blocks of red and gray granite, quartzose pudding-stones and crystals are scattered over these plains, and are accompanied with amber, petrifications, particularly the agatized, and madreporas."

of Arend in Brandenburg, have been formed in the same way.^a That fact, taken in connexion with the particular figure of the lakes, indicates an origin common to them all. Floating islands are not uncommon; the Poles call them the *plica* of the lakes; they consist indeed of tissues of roots and plants interwoven in a manner not unlike the plica of the hair,^b and some appear and disappear regularly at certain seasons.

The marshy plains on the east and south of the Baltic reach beyond the line which marks the separation of the waters between the different seas. That boundary is not, as M. Buache imagines, a range of hills; it is formed on the contrary by a continuation of lakes and marshes. The same appearance extends throughout Polesia and the greater part of White and Black Russia, or the waiwodats of Novogrodeck, Minsk and Polock. According to a popular tradition, these marshy countries formed in ancient times a little Mediterranean on the east of Poland, the south of Lithuania, and the north of Volhynia; it is affirmed indeed that the waters were drained by a king of Kiow, but there are no hills which could serve as a dike for such a sea.^c It may be remarked that the great rivers in Poland, although they flow towards two different seas, communicate with each other after heavy rains by means of their feeders, and inundate the country. Canals may be easily cut between all the tributary streams from Wlodawa in Poland to Sluck in Russia; but as barriers cannot be raised against the sand, these communications are blocked almost as soon as they are formed. The Pripetz, a feeder of the Dnieper, joins the Bug and the Niemen in spring and in autumn; Polesia is then inundated or changed into a lake.

The heights, which separate the chalky lands of Volhynia from the rich plains of Podolia, form a chain or lofty ridge near Lemberg. The Bog, as we have already mentioned, takes its source on the south of these hills, and the Dniester rises in the same ridge at the base of the Carpathians. Both these rivers flow to the Euxine; their steep banks are lined with soft calcareous rocks, that contain gypsum, and support a thick layer of rich and dark mould.^d

The *Bug*, which is apt to be confounded with the Bog, rises on the northern side of the same hills; according to the Poles, it loses its name when it joins the Narew; the last river flows from the plains of Lithuania, and is believed by the common people to be fatal to serpents.^e The Bug, it must be admitted, is not so large as the Narew, but its name is retained on the maps beyond their confluence at Sierock. The *Vistula* descends from the mountains of Silesia, and is enlarged by the Bug or the Narew, the Pilica and most of the other rivers in Great and Little Poland. The San, one of its feeders, was supposed to rise near the roots of an immense oak, that covered with its thick foliage the sources of the Dniester. The tradition is only applicable to the Stry, which might perhaps have been considered the principal source of the Dniester.^f The Warta, like the *Vistula*, flows in a broad channel, and inundates the

neighbouring fields; though not deep,^g it has the appearance of a large river, and its streams serve to enlarge the Oder.

The Polish rivers, after they overflow their banks, leave a rich deposit, by which the inundated lands are fertilized. The Niemen, that limits the kingdom of Poland, is the only one not subject to inundations; uprooted trees are never carried down its course, and the banks are never undermined by its waters.^h

The climate of Poland Proper is necessarily modified by its position. The country, it must be recollected, is situated between two cold regions; it is surrounded on the east and the north by the central table-land of Russia, and on the south by the Carpathian mountains, which are exposed to an almost perpetual winter. The influence of the last climate extends to all the neighbouring regions; thus the thermometer has descended at Lemberg and Cracow to -20° and -22° of Reaumur.ⁱ All the corn in the neighbourhood of Cracow was blasted in the year 1654, by a severe frost that happened on the day of Pentecost.^k The crops in the districts at the base of the Carpathians are often destroyed by storms of hail.^l

The east wind is the coldest of any in the rest of Poland; it blows from the table land of Russia and the Uralian mountains. The north wind is milder and more humid,^m but the west wind, which continues a great part of the year, is the harbinger of dense and unwholesome mists in the neighbourhood of Warsaw. The south wind passes above the Carpathians, and adds to the intensity of the cold.

It has been proved by a number of thermometrical observations, that the Polish winter is not milder than that of central Sweden, although the difference in the latitude is equal to ten degrees.ⁿ The maximum of cold at Warsaw varied in a period of fourteen years from -8° to -25° of Reaumur, and the mean term was found to be equal to $-17\frac{2}{3}^{\circ}$. The maximum of cold varied in a period of seventeen years at Upsal, from -11° or -12° to -23° , and the mean term was $-18\frac{2}{3}^{\circ}$. But it ought to be remarked that there were no remarkable winters in the Swedish as in the Polish series; for, with the exception of 1791, in which the maximum was only equal to $-8\frac{1}{2}^{\circ}$, it amounted every other year to at least -12° .^p

The time of vegetation may serve, as well as the thermometer, to indicate the temperature. The hazel-nut tree and the daphne mezereum begin to flower about the vernal equinox, or about five weeks later than at Paris. The white poplars flower in March, but the juniper, the willow, the alder, the birch and the common ash are nearly a month later. The beech, the red berried elder,^q the barberry and the wild pear tree are in blossom in May. Hemp, asparagus, the walnut tree, the common elder and the bramble flower in June, and the *Datura stramonium* in the month of July.^r

The climate of Poland is very variable. Dlugossi informs us that in one year^s all the rivers were blocked with ice

^a Merian, Topograph. Brandenb. p. 21.

^b Rzaczynski, Hist. Nat. p. 161.

^c Comp. Rzaczynski, p. 461.

^d Zlewiski's notes. See Guettard, p. 298, 306.

^e Dlugossi, lib. I. p. 18. Cromer, 61.

^f Dlugossi, p. 17.

^g Dlugossi, p. 21.

^h Thirteen and seventeen degrees below zero of Fahrenheit.

^k Whitsunday.

^l Rzaczynski, p. 382, 708, &c.

^m Conrad, Diss. de effect. frigor. Dantzie, 1670. Erndtel, Warsavia physice illustrata, p. 37.

ⁿ Voyage de deux Français, t. V. p. 40.

^o Eight degrees below zero of Reaumur are equal to 14° above zero of Fahrenheit; -25° of R. to $-24\frac{1}{2}^{\circ}$ of F. and $-17\frac{2}{3}^{\circ}$ R. to $-8\frac{1}{2}^{\circ}$ F.

^p Twelve degrees below zero R. are equal to $+5^{\circ}$ F.

^q "Sureau à grappes," *Sambucus racemosa*, L.

^r Erndtel, Viridarium Warsaviense, ad calcem Warsav. Phys.

^s "Anno 974."

from the month of October to the vernal equinox; in another winter the Baltic was frozen, and many travelled on the ice from Dantzic to Lubec.^a The weather is so mild in some winters, that the fields are clad with a new vegetation. The rose bushes near Dantzic were covered a second time with flowers, about the end of October, 1568. The same phenomenon happened again in the month of December, 1588, and such was the mildness of the winter in 1659 that swarms of bees issued from the hives. These facts may be contrasted with others relative to Lithuania, although the latter is not politically connected with Poland. The historian of Lithuania enters into curious details concerning the winters of 1414 and 1492.^b The fields in a country under the fifty-fifth parallel were covered with flowers in the month of January; the corn rose from the ground and its spikes were formed, and the music of birds re-echoed in the groves. But the month of March was accompanied with a sudden and intense frost; in one night all the riches of this early summer were annihilated; the second harvest was not abundant, exhausted nature afforded but a scanty supply.

Globes of fire, parhelions, falling stars, aurora borealis and other phosphoric or electrical phenomena are frequently observed in Poland. It may be sufficient to cite, among others mentioned by the Polish writers, that fiery globe which seemed to detach itself from the body of the moon.^c It appears from an obscure narrative, that King Uladislaus Jagellon and his suite, like M. de Saussure in our own time, were enveloped in an electrical cloud while travelling in an open plain.^d

The air of Poland is in general humid and cold from the impure exhalations that rise from dark forests and the surface of vast marshes. Thus, although the climate is salutary to the natives, it is dangerous to foreigners.^e But the insalubrity of a cold and moist atmosphere is much diminished by the violent winds that circulate freely in these immense plains, and are so impetuous that they form sandy hills, and cover sometimes whole farms with sand, near the shores of the Baltic.^f

The nature of the atmosphere and the soil enables us to account for the rapid corruption that takes place in the running and stagnant waters in different parts of Poland. The streams of the Dniester and the Vistula are sometimes of a reddish colour, the lakes are occasionally covered with a green substance, and goitres are supposed to be produced from drinking the water in many springs on the Carpathians.

Few minerals are found in that large and sandy plain, which forms the northern and central portion of Poland. The land, as in all the northern countries on our globe, is incrustated with a ferruginous deposit, and every marsh and every meadow contain iron in a greater or less proportion. Marine petrifications are common in many districts, and that enigmatical substance, which the learned call *succinum*, and the vulgar *yellow amber*,^g is not rare; large pieces are collected at Chelm and other places at a great distance from the sea.^h It is remarkable that no saline substances,

with the exception of nitre, have been observed in this region, while an immense layer of fossil salt extends along the Carpathian mountains, which, as shall be afterwards seen in our account of Bochnia and Wieliczka, in the kingdom of Galicia, might afford a sufficient quantity of salt for the consumption of all the countries on the earth. One part of the kingdom of Poland, the portion between the Vistula and the Pilica, abounds in mineral and metallic substances, that were first wrought under the direction of M. Carosi, the engineer appointed by the unfortunate king Stanislaus Leczinski.

Olkusz, a town on the northwest of Cracow, continued to flourish as long as the neighbouring mines were worked; its streets are now deserted, and its trade is ruined. The strata succeed each other in the following order; marl, breccia, slate, lead mixed with silver, and a small portion of iron and calamine, and lastly, limestone. It is proved by the records of 1658 that the royal tithes on these mines amounted to 1225 marks 4 ounces of silver, and 1514 hundred-weightsⁱ of lead; now as the tithes were not rigidly exacted, the total produce, it may be allowed, was greater than ten times that quantity. It appears from the lowest valuations, that the ore extracted from the mines must have been worth 476,773 Polish florins, which were then equal to 1,907,100 florins of the present day. Government has frequently deliberated on the best method of renewing the works; indeed it seldom happens that a mine which was so profitable has been so long neglected.^k A mine of calamine is at present worked at *Ligots*, and the marble in the neighbourhood of *Czarnowa* is impregnated with lead. A remarkable combination has been observed at the latter place; it consists of white foliated lead^l mixed and apparently fused with sand.^m The proportion of lead in the ore is as fifty-four to the hundred. The iron mines are the most common of any in Poland; those at *Drzewica* yielded every week about 90 hundred-weightsⁿ of ore, which was imbedded in sandstone.^o The neighbourhood of *Konskie*, and many parts of the country, are rich in alluvial iron.^p The largest works have been erected at *Sucheniow*, *Jedrow* and *Samsenow*. The iron at *Brin* near *Wochoc* is probably better than any other in Poland, but a small portion of copper is left in it, a defect that arises from an imperfect process of smelting. It said that a large piece of native iron was found at *Miedziana Gora*;^q it is certain, however, that iron pyrites, blue copper, malachite, and lead mixed with silver, have been collected near the same place. The last substance predominates, and the early authors evidently allude to it, when they inform us that the bishops of Cracow loved the town of *Slawkow* better than their other possessions, because of its famous silver mines.^r *Cranow* and *Novagora* are mentioned among the other places in which the same substance was obtained.

The metals are not the only riches of the country; good millstones are obtained at *Mniow*, and fine marble in different districts. A perpendicular vein of copper pyrites, about three yards in breadth, crosses a marble hill near *Chencyn*. *Lapis-lazuli* has been extracted from the vein,

^a Rzaczynski, Tract. VI. sec. I. art. VI.

^b Kwialowicz, Hist. Lithuan. t. II. p. 6.

^c Tylkowski, Physica curiosa, p. 9.

^d Reinzer, Meteorolog., cited by Rzaczynski.

^e Starovolski, Polonia, p. 98.

^f Rzaczynski, p. 420.

^g This translation does not convey the force of the original. The passage, in fact, is foreign to the English language. It should be rendered,

"the learned in France call it *succin*, and the common people, yellow amber (*ambre jaune*)."—P.

^h Guettard, Acad. des Sciences, 1762, p. 262.

ⁱ "1358 quintals." ^k Carosi, t. II. p. 186.

^l "Plomb blanc spathique"—carbonate of lead.—P.

^m Carosi, t. II. p. 86.

ⁿ "70 quintals." ^o Carosi, t. II. p. 25, 33. ^p Bog iron. ^q Carosi, t. I. p. 22.

^r Starovolski, Polon. p. 20. Cromer, Polon. Elzev. p. 52.

according to a Polish naturalist,^a and it is affirmed that the Palatine Bidzinski offered a table made of that precious stone, to Pope Innocent the Ninth. Small pieces of green copper are found in the marble of Miedzianka,^b and the fields near Ostrowice and Gorna-Wola are covered with an efflorescence of vitriol and alum. The country is of the alluvial formation; the rocks are composed of many substances confusedly joined together, and small fragments of different ores are disseminated through them.

The soil in the kingdom of Poland is not as rich as in the Ukraine, and it is even less fruitful in many places, than Lithuania;^c still every sort of grain, from wheat to millet, succeeds in the sandy plains and light mould. The country becomes more fertile as we ascend the Vistula, on the south of the Pilica, towards Sendomir and Cracow, but the difficulty and costs of exportation are increased. The lands of the nobles are in general too extensive to be carefully cultivated, and many proprietors are not provided with a sufficient number of labourers. The peasants are free,^d and find it more profitable to settle on the domains of the crown, where more than a third of the population is at present concentrated. The Jews, who are the wealthiest men in the country, are by law prevented from purchasing heritable property; for that reason the price of land is very low, but the land owners cannot obtain the funds necessary to improve their estates without paying an exorbitant interest.^e A great part of Masovia consists of large forests, and there is no scarcity of timber in most provinces. The sandy plains are covered with every variety of the pine, the fir and the beech thrive on the high ground, and the oak grows wherever the soil is sufficiently strong.^f The lime, the larch, the elm and the ash adorn and diversify the forests. The larch succeeds best in the neighbourhood of Rava and Sendomir, and also on the Biecziad mountains in Galicia. The finest birch woods are those in the vicinity of Warka in Masovia, and the largest lime trees shelter the country near Prenn on the Niemen.^g

If we may believe the early Polish writers, bees were so common in their time, that the trunks of old trees were not only filled with these insects, but the ground was covered with their cells. They prefer the trunks of the fir, the *Pinus picea*, the lime and the oak to every other tree.^h Those authors also make mention of the large vats in which the ancient Poles kept hydromel,ⁱ their favourite drink. So great were the dimensions of these vats, that men, it is said, have been sometimes drowned in them. The Danes, it appears from the Scandinavian historians, were equally fond of hydromel. According to Herodotus and other Greek authors, several countries on the north of the Danube were uninhabitable; in other words, the people were driven from them by innumerable swarms of bees.^k

The lakes and rivers are well supplied with fish, and large fish ponds, like those in Galicia,^l have been dug by the

inhabitants of Upper Poland.^m The different kinds that frequent the lakes are the pike, the perch, the eel, the tench and the bream. Many carps are bred in the ponds, and trout, barbel, lampreys, salmon, sturgeon, and other species, are found in the rivers.ⁿ

The most common birds are the eagle, the falcon, the swan, the crane, the partridge, the quail and the starling; the thrush is comparatively rare. The *sniegula* or snow hen is seen in winter; the Poles consider it a great delicacy, and it is most plentiful in the neighbourhood of Lowicz.^o

The oxen in Poland are inferior to those in Podolia and the Ukraine. The horses, though not large, are well made, swift and strong. Sheep abound in the country, but the numerous flocks are covered with coarse wool.

Wild animals find shelter in the immense forests of Poland and Lithuania. The stag is now rare, but there are many wild boars, foxes, squirrels, hares, rabbits and beavers. The most destructive of any are the wolf and the glutton.

The art of training the bear, is not an uncommon trade in Poland and Lithuania; the country people lead them from one place to another, and their tricks serve to amuse the populace. The bear is rendered docile and tractable by severe treatment; when taken very young, it may be taught to carry different articles to its master, but its natural ferocity appears in old age, and it is never safe to keep one for any length of time.

Authors who have written on Poland, entertain different opinions concerning the existence of a wild animal, a kind of bull, which is called the *urus* or the *bison*. Some writers consider the two terms synonymous, others apply them to two distinct species, and it is maintained that the common ox is sprung from the one or the other.^p The information collected by travellers and Polish writers on the subject is vague and inaccurate.

There exists or there has existed in the forest of Wyskitca in Masovia, a race of wild bulls, of the same form and nearly of the same size as the domestic animal, but all of them are distinguished by their black colour and a white line that extends along the back. They copulate with the ordinary cow, but no fruit has hitherto resulted from their union. *Tur*, an ancient Gothic word, that signifies a bull, is the name by which the inhabitants call them, and it corresponds in the modern Polish with *urus* or *aurochs*.^q A different account is given of an animal, which is said to exist or to have existed in eastern Prussia, Lithuania and Podolia. It is much larger and stronger than the bull; it has a protuberance on the back or between the shoulders, and a long and pendulous mane round the neck.^r Its head, though small in proportion to the rest of the body, is armed with long horns, which form a sort of crescent, that varies from two to four cubits.^s The Poles and the other Slavonic

^a Rzaczynski, Auctar. Hist. Nat. Pol. p. 65.

^b Carosi, t. I. pp. 75, 79, &c.

^c "The soil of Lithuania has a greater mixture of clay."

^d The peasants were formerly in a state of servitude to the nobles, but they were declared free by the constitutions of 1791, 1807 and 1815.—P.

^e Jacob's Report on the Corn Laws.

^f Martin Cromer. See the Collection of Pistorius, p. 80.

^g Hassel, Geography of Weimar, XI. p. 198.

^h Cromer, Polonia, Elzev. p. 50. Michov. Sarmat. lib. I. c. II.

ⁱ Mead or metheglin.

^k Herodotus, book V. ch. X. Ælian, book XVII. c. 35.

^l See p. 572 of this volume.

^m Rzaczynski, p. 162. Starovolski, p. 36.

ⁿ Cromer, Polonia, Elz. pp. 66, 67.

^o Cromer, Polonia, Elz. p. 74.

^p Pallas, Mémoire sur l'urus, Novi Comment. Petropol. Cuvier, Dictionnaire des Sciences Naturelles, article *Bœuf*, &c.

^q "— it has been a subject of dispute, whether the common ox was identical with either."

^r This implies that although in the old Gothic, *tur* signified a bull, yet in its modern use by the Poles, it signifies the same as the Latin *urus* and the German *aurochs*.—P.

^s "— under, or according to others around the neck." See note b, p. 566.

^t "— armed with horns, two cubits, and according to others, four cubits long, and which form a sort of crescent, large enough to hold three men conveniently." The horns are in the shape of a crescent, and scarcely six inches long. Gilibert, Abrégé du Système de la Nature, p. 492.—P.

nations call it the *zubr*, *zumbro* or *zambro*, a word that now signifies a bison. If we judge, however, from the descriptions of the animal, it appears to be the same as the one that the Germans in the time of Cæsar called the *ur-ochs*, *aur-ochs*, or primitive ox; for *ur*, *aur* or *aar* means in the Gothic languages, origin, commencement or remotest antiquity. *Wissen*, the term for the bison in the Edda, is probably derived from *bisse* or *wisse*, a substantive that denotes the rage to which the domestic bull is subject.^a It is yet to be determined if the real urus was styled the bison, or if the first term was employed to designate a herd of ordinary oxen that had passed from the domestic to the wild state, and, lastly, if the accounts of the great size of the urus are not wholly fabulous.^b

Cæsar, Pliny, Seneca and other Roman writers distinguish the bison from the urus, and characterise the first by its mane, and the second by its large horns. The only facts, that cannot be denied, are the existence of the urus in Germany in the time of Cæsar, and in Dacia during the reign of Trajan, the great length of its horns, which were imported into Greece and sold in that country at an early period,^c and the antiquity of the Slavonic word *Zumbro*.^d

The Poles are a strong, active and well-made people; their physiognomy is frank and prepossessing; light and chestnut hair are very common, and that circumstance, as well as the language of the country, may prove the frequent mixture of the Gothic and Slavonic races. Mustachios are worn by men of every rank; it is as general a practice to shave the head, leaving only a small tuft of hair on the crown, which gives the people a foreign or rather an Asiatic appearance. The fair sex are celebrated in the north for their beauty; they surpass the Russian women in symmetry of form, and the Germans in the fineness of their complexion. They are better educated, and more animated and agreeable in their manners than the women of Russia.

Although the natural strength of the Poles is increased by the hardy way in which they are brought up, they are exposed to a greater number of diseases than their neighbours. The maladies peculiar to the country are attributed to the quality of the air, which is rendered unwholesome by large and numerous marshes, to the want of good water, and the uncleanly habits of the great majority of the people. Some malignant diseases are not unfrequent in Poland, though unknown in Russia. The last country is situated under a higher parallel, but the maladies that are common to the two nations, are more contagious and dangerous in Poland.

Epidemic diseases are of rare occurrence; the small-pox is the most fatal of any. The cause may be owing to improper treatment, bad diet and the habitual negligence of the people. The Polish peasants are as little protected against the contagion of the most dangerous variolæ, as the Turks are against the plague. The healthy and the diseased are crowded together in narrow hovels; the fetid vapours which they exhale, and the excessive heat of the apartment, add to the malignity of the evil. It is calculated that the mortality is in the proportion of six or seven

to ten; such as survive are often frightfully disfigured. It is thus easy to explain why there are more blind people in Poland than in any other European country.

Syphilis is very common; the proportion in the large towns is as six to ten. "Out of a hundred recruits that were examined," says Dr. Lafontaine, "eighty were affected with it."^e Men wanting the nose may be seen in every Polish village.

The diseases which we have enumerated are known in other European states, but plica is confined to the country, and it ought for that reason to be more fully mentioned.

Plica is endemical in Poland and in some adjacent countries. As the peccant matter is developed, it passes into the hair, and binds it so closely together that it cannot be separated; however, it is not always confined to that part of the body, but appears often in the nails of the hands and feet. The disease spares neither age nor sex; it is observed in infants at the time of their birth; it attacks the inhabitants of all classes, and even strangers on their arrival in Poland, but the peasants, the poor and the Jews are more exposed to it than the rest of the inhabitants. Some individuals are never afflicted with it, while others are never free from it at stated times.^f It has been shown by repeated observations, that plica does not depend on the colour of the hair, or on any particular temperament. The same disease is contagious; it is communicated by dress, by sexual intercourse and by nurses to children. It proves fatal to some of the lower animals, particularly to such as are covered with long hair.

Plica is occasioned by a substance of which the nature is at present unknown, and which is probably as difficult to determine as the one that produces scurvy or syphilis. The matter is viscous and acrid; it is formed in the lymph, and deposited in the hair and nails. Cleanliness is no security against it, and the development of the disease is neither promoted nor retarded by the state of the atmosphere, the quality of the water, or a particular diet.

It has been shown by a recent experiment of M. Schultes, that the matter contains a portion of uric acid, a discovery that may perhaps lead to a solution of the enigma.

But the endemical character of the Polish plague is not likely to be soon explained. It may be asked why plica is almost exclusively the scourge of the Poles; it cannot be imputed to their diet, for it is favourable to health, and their occupations and manner of life enable them to bear great fatigue, and to resist many privations.

The acrid matter passes into the hair when it is separated from the blood, and the disease then comes to a crisis. The patient may suffer much before its development, but plica is not accompanied in some instances with any pain. If the art of the physician is unavailing, or if nature does not cooperate in removing the virus by the hair and the nails, it may enter the noble parts of the body, the brain, the stomach or the lungs, and engender fatal diseases. It may appear in the eyes, and occasion cataract, or it may become corrosive, and penetrate into the bones and marrow; excruciating agony is then the inevitable consequence, and death only can put an end to the sufferings of the patient. As soon as

short beard under its throat. It is perhaps the same species with the American buffalo." Cuvier, *Regne Animal*, t. I. p. 269, 270.—P.

^c Herodotus, VII. chap. CXXXVI.

^d Inscription of an epigram of Addæus, in Brunck's *Analecta*, II. p. 241, No. 2.

^e *Dissertations Médicales sur la Pologne*.

^f "—others are repeatedly attacked with it, and sometimes at regular periods."

^a See the following passages in the *Scriptores rerum Polonicarum*, by Pistorius: Erasmus Stella, lib. I. *in fine*; Martin Cromer, t. I. p. 84; Herberstein, t. I. p. 159. See also Vigenere, fol. XXIII. The animal described by Coxe and other modern travellers is a degenerate urus.

^b "The *Aurochs* of the Germans, *Zubr* of the Poles, and *Urus* or *Bison* of the ancients, is a peculiar species. It is distinguished by its arched forehead, (*front bombé*,) the length of its legs, an additional pair of ribs, and a sort of curly wool which covers the head and neck of the male, and forms a

the crisis arrives, and the matter is deposited in the hair or nails, every dangerous symptom disappears, and the individual is gradually restored to health. If a relapse follows, it may be concluded that the virus has not been expelled from the blood. When the quantity of matter is so great that the hair cannot contain it, the plicæ burst, and the matter is diffused over every part of the head. The cure must be effected by nature; after the plicæ are completely formed, they fall of their own accord, or are detached by a new growth of hair. The duration of the complaint varies; it is seldom cured in a short time, it continues generally from one to four months, and lasts sometimes longer than a year.

The time and the country in which the disease originated, cannot be determined. According to some Polish writers, it was introduced after an incursion of the Tartars, and was unknown in Poland before the year 1387. It is certain, however, that the tradition is mixed with many absurd fables, and even on the supposition that the opinion is well founded, it ought to be explained why plica was not communicated to the Russians by the Tartars, for the latter ruled over the greater portion of their empire during several centuries. The Russians who reside near the Polish frontiers, are seldom liable to it, yet the climate is the same, and the diet and habits of the people are not different. The frequent use of the vapour bath in Russia, may perhaps act as a preservative against a disease, which, if not exclusively confined to the Sarmatian climate and the Slavonic race, is nowhere as prevalent or fatal as in Poland.

The kingdom of Poland is at present divided into eight departments; their ancient names^a and the title of *waiwodat* are still retained; we shall therefore adhere to them in the following table.

	Square leagues.	Population in 1819.
1. Cracow	587	445,000
2. Sandomir	784	432,000
3. Kalisch	892	512,000
4. Lublin	881	490,000
5. Plock (Plotsk)	805	364,000
6. Masovia	890	481,000
7. Polachia	633	286,000
8. Augustowo	894	335,000

Warsaw, the capital, or, as it is styled by the Poles, *Warszawa*, contains 120,000 inhabitants,^b and about 9000 houses. The population is rapidly increasing, but although the town has been much embellished, too many ancient buildings, narrow streets, and wooden houses covered with straw, are suffered to remain. It is a place of great antiquity; it is mentioned by Josaphat Barbaro, but it was little known before the union of Poland and Lithuania. The town then rose into importance;^c the warlike and independent inhabitants of both states repaired to it, although both contended for the honour of giving a capital to the common country. Sigismund III. was the first king who fixed his court there; his successors made it their residence, and to conciliate the Lithuanians, the diet was transferred to it in 1566. Warsaw was taken in 1655 by the Swedes, who collected there the immense booty that they had obtained in Poland. It was retaken by the Poles in the following year, and the quarter which is now called the city, then made up

the whole of the town. The different suburbs, of which the most remarkable are the *Nowy-Swiat* or new town, Alexandria, Krakow, and Praga on the other side of the Vistula, form at present the finest part of Warsaw. The city consists of a long and narrow street, in which the others^d terminate; but in the suburbs, the streets are spacious and clean; they are adorned in many places with churches and monasteries, and with several large palaces, that were built in the time of the Saxon kings. A traveller maintains that the greater part of the town is dirty, ill paved and never lighted at night.^e The Polish nobles, accustomed to ride in carriages or on horseback, seldom thought of humble pedestrians or of the evils to which they submitted; but these defects have been remedied by the present government. The suburb of Praga may be considered a town of itself, for its population amounted to 6690 souls in the year 1782; the number was reduced after the visit of the barbarian Suwarrow in 1795, to 3082. Dead bodies were carried down the Vistula to Prussia; and Warsaw, dismantled by the plunderers, became a provincial town. The ancient capital, which was peopled in 1782 by 89,450 inhabitants, contained in 1797 not more than 66,572. A Prussian author supposes that the population, probably including the garrison, was equal in 1804 to 74,900 individuals.^f The place was stripped of its finest ornaments during these sad vicissitudes. The paintings collected by the last king of Poland, are now in Russia; his library, consisting of more than 45,000 volumes, was purchased by the emperor Alexander, and presented by him to the Volhynian gymnasium. The famous library of the Zaluski, which belonged to the republic, and contained exclusively of duplicates, 200,000 volumes, was sent to Petersburg. The care of packing it was committed to the Cossacks, who threw many of the works into the street, burnt others, divided the rest into confused heaps, and put them into old chests or insecure boxes. The cargo was conveyed in sledges to Petersburg, but it often happened in the course of the journey, that a case gave way or sprang open from the manner in which the goods had been packed; on these occasions a soldier picked up the books, and pressed them down with the point of his sabre.^g Warsaw was improved during the paternal reign of Alexander the First; the new university was liberally endowed by that prince, who made the town the residence of a viceroy and a primate.

The bronze statue of Sigismund the Third is situated near the gate of Cracow; a marble column twenty-six feet in height serves as a base for the figure, which was erected in memory of Sigismund by Uladislaus the Fourth, during the years 1643 and 1644. The *Zameck* or royal castle is at no great distance from the last monument; it was built on an eminence in the suburb of Cracow by Sigismund the Third. One part of that large but simple edifice serves as a hall for the diet; another part has been changed into an astronomical observatory. The gardens belonging to the Saxe and the Krasinski palaces are the only public walks in the town; but the wealthy feel little inconvenience on that account, for the shady walks of Ujazdow, in the neighbourhood, may vie with the *Prater* of Vienna. The public baths in the gardens of *Lazienki* are much frequented, and many coun-

^a As far as the present divisions have permitted.
^b The population of Warsaw and Praga amounts to nearly 100,000 souls, exclusive of the garrison, which contains 20,000.—*Ed. Encyc.*—P.
^c From its central position between Cracow and Wilna, the two ancient capitals of the Poles and Lithuanians.—P.

^d Cross streets, intersecting it at right angles.—P.
^e Fortia de Piles, t. V. p. 22.
^f Muller's Geography, vol. II. p. 373.
^g Tableau de la Pologne, p. 128. Notes communicated by Poles.

try houses are built in the vicinity. The island of *Kepa-Saska* is a dependence of the town, and the greater part of it is covered with gardens. *Willanow*, which is not more than four miles from Warsaw, is visited by strangers; it belongs to the princess Lubomirska, and was formerly the residence of the great Sobieski.^a The commerce of the capital consists chiefly in the produce of the country; the manufactures are cloth, linen, carpets, stockings and hats; but carriages and harness are the only articles of good workmanship.

The other towns in Masovia are insignificant. *Czersk*, a long time the residence of the Masovian dukes, contains less than four hundred inhabitants, and although *Brzesc*, the capital of Cujavia, still retains its ancient fortifications, it is not peopled by more than nine hundred individuals. *Lowicz* and *Kuttno* are the towns next in importance to Warsaw; the first was the metropolis of an ancient principality, its population amounts to 3380 souls; the second boasts of 2600 inhabitants, but 1400 are Jews. The castle of *Nieborow* near *Sochaczew*, is more admired than any other in the department; it belongs to the Radziwills; a library of 20,000 volumes, and the delightful retreat of Arcadia, evince the taste of the proprietors.

The town of Kalisch in the waiwodat of the same name, is well built; the streets are paved, the most of them are broad, and the avenues that lead to the gates, are shaded with trees. Its population, which is not less than 8000 souls, its military school and its cloth and linen manufactories, render it one of the most important places in the kingdom. The Prosna winds through a rich and picturesque valley, and bathes the walls of Kalisch. Several small manufacturing towns are situated in the country between the Prosna and the Warta. *Piesern* or *Pidry* is peopled by two thousand inhabitants, *Petrikau* or *Piotrkow* is the seat of two tribunals, and *Wolborz* is the residence of the bishop of Cujavia. The fortified convent of *Czenstochowa* is famous from the siege that it sustained, and from a miraculous image of the holy Virgin, an image that is every year worshipped by 40,000 pilgrims. The convent is built on the *Jasno-Gora* or the *Klarenberg*; the old and new towns that surround it, contain a population of more than 3000 individuals.

The country becomes hilly or mountainous in the waiwodat of Cracow, and the table-land between the Pilica and the Vistula is composed of sandstone and calcareous rocks; the mines in that part of Poland have been already mentioned. The first heights are observed at Bendzin towards Silesia,^b and at Szydłowice in the direction of Warsaw.^c The vallies that extend toward the Vistula, particularly those watered by the Nida, yield rich harvests, and the lands in the neighbourhood of Pinczow and Busko, which are set apart for the culture of anise, are as fruitful as any in the kingdom.^d But the country on both sides of the road from Konskie to Malogosc and onwards to Olkusz, exhibits the appearance of poverty and want. The range consists of a series of hills intersected by vallies; for that reason, perhaps, the heights appear to be very steep, but when ex-

amined from the top of the *Lysa-Gora*, it is seen that they form a long ridge flattened at the summit.^e The *Lysa-Gora* may be compared to a promontory; it terminates the table-land of Little Poland on the north-west of Sandomir, and is chiefly composed of hard quartzose sandstone. The mountain is observed at the distance of more than fifteen leagues, and commands the whole of Upper Poland. Numerous fountains rush from the arid rocks, where a pious multitude from remote regions, often meet at a monastery renowned for its miracles. The sides of the *Lysa-Gora* are frequently enveloped in clouds, and to that cause are attributed the sudden and heavy rains, which deluge the adjacent lands.^f

Kielce, *Slawkow* and *Zarki*, three mining towns, are the only places worthy of notice in the waiwodat of Cracow. The palace of the vicar-general, and the school of the mines, are situated in the first town, which contains 5000 inhabitants. *Sandomir* in the waiwodat of the same name, notwithstanding its two thousand seven hundred inhabitants, its fortified castle, and its fields rich in wheat, must cede the title of capital to the small town of *Radow*, which is more centrally situated. The Jews of *Opatow* carry on a lucrative trade in Hungarian wines; and *Rakow*, a decayed town, was inhabited by the Socinian sectaries, who were banished in 1643,^g contrary to law and the faith of treaties.^h

The mountains disappear on the other side of the Vistula, in the waiwodat of Lublin, which is watered by the *Wieprz*, and separated from Russia by the Bog. The province abounds in corn, wood and cattle, and although it is not probable, as Chwalkowski supposes, that the rye of Lublin changes in time into wheat, yet it contains a great quantity of flour, and is remarkable for its thin pellicle. Lublin, the second city in the kingdom, is peopled by 10,000 inhabitants; we observe in the town the ruins of the castle of Casimir the Great, the palace of Sobieski, some fine churches and the largest synagogue in Poland. The fairs are frequented by German, Russian, Armenian, Greek and Turkish merchants. *Zamosc*, a very important fortress, is built after the Italian manner with arcades round the houses, but as the fortifications were much extended, the number of habitations and inhabitants has been proportionably diminished. *Pulawy*, on the banks of the Vistula, a place celebrated in poetry, belongs to the Czartoriski. The noble architecture of the castle and the church, the temple of the Sibyl, an imitation of an ancient edifice, the splendid library of the proprietors, and the scenery described by Delille, form an agreeable contrast to the vulgar details connected with geography. The castle of *Klenezow*, the residence of the Zamoiski, is situated in the same province, and two monuments of classical taste, the mausoleums of General Orłowski and the poet Kniaznin, are not more than three miles from *Pulawy*.ⁱ It is natural to admire the good feeling and generosity of nobles, who have used their wealth in promoting the happiness of those around them, but it must not be imagined that isolated palaces surrounded by hamlets and mean cottages, are any proof of general prosperity.

^a It was built by Sobieski, and was his favourite residence. After his death, it was sold to the noble family of Zartoriski, who granted it to Augustus II. It is now the property of Count Potocki. "The princess Lubomirska was by birth a Zartoriska." Malte-Brun, t. VI. p. 718.—P.

^b Zollner's Travels, vol. I. p. 255.

^c Carosi's Travels in Poland, Germany, &c. vol. I. p. 6.

^d Rzaczynski, p. 86. Starovolski, p. 28.

^e Carosi, t. I. p. 227, &c.

^f Rzaczynski, Tract. III. c. II. art. 7. Sarnicki, Chorographia, in voce Mons Crucis. *Lysa-Gora* is the Polish name of this mountain, which is also called the mountain of the Holy Cross.

^g It was the metropolis of the Socinians, and noted for their school and printing establishment. They were banished in 1645. Encyc. Method. partie Géog. Mod.—P.

^h Rzaczynski, p. 69.

ⁱ "At *Konskowola*."

Rubieszow and *Tomaszew*, two frontier towns, are enriched by their commerce in Hungarian wines, and their trade in hydromel.

The numerous lakes, marshes and forests, which separate the sources of the Bug and the Wieprz, in the districts of Biala and Radzyn, form part of the romantic and fruitful waiwodat of Polachia. *Siedlec*, the chief town, is noted for its white bread and ardent spirits; the former is perhaps as good as the bread in other countries, the latter is not quite so bad as the strong drink in the rest of Poland.

The waiwodat of Plock corresponds with the Prussian department of the same name, and many curious details concerning it are contained in the statistical tables published by authority of the Prussian government. Thus, the extent of the land in cultivation is equal to 127,984 *hufen*, and the forests, heaths, marshes and lakes make up 102,386.^a The western districts are covered with forests of lofty oaks, but the ordinary return of rye and barley throughout the department, is not more than three to one. Plock, which contains seven or eight thousand inhabitants, is surrounded by orchards, and the Vistula flows beneath its walls. The town is enlivened by its trade, the fishermen cast their nets in quest of salmon, and many boats laden with the corn of Poland, sail down the river.^b A Polish theatre and a public garden are the places of amusement. An official journal has of late years been established, and Plock is likely to become, from its position, one of the first commercial towns in the kingdom. The different places on the Narew and the Bug are *Modlyn*, an important fortress, *Ostrolenka* near the desert of the same name, an immense heath partly covered with natural woods, and *Pultusk*, which is almost encompassed by the Narew; the last town contains 2500 inhabitants; its lofty castle stands on the summit of a rock, and commands the adjacent plain. The river *Orzik* in the district of Mlava, flows a mile and a half in a subterranean channel.

Augustowo, the eighth and last waiwodat, comprehends a small part of Lithuania, now united to the kingdom and formerly to the grand duchy of Warsaw by the high powers that presided over the different divisions of Poland. The province of Bialystock ought perhaps to be added to the Polish crown, or it might be exchanged for the Lithuanian portion, which extends to the north of *Augustowo*, a small town founded by Sigismund Augustus, of which the population is less than 2000 souls. That narrow headland, if it may be so called, is fruitful and well cultivated; it is bounded by the territory of Prussia on the west, and the course of the Niemen on the east and north. *Suwalki*, a place of three or four thousand souls, is now the metropolis of the waiwodat; *Novemiasto* and *Kahary* are the towns next to it in importance. The convent of Wigry and its colossal walls are built on an island in a lake, and more than ten thousand pilgrims repair every year to the monastery of Seyny.

A surface of about 6340 square leagues, and a population of 3,700,000 souls, are all that remain of the conquests

of Boleslaus in Red Russia, of the accessions gained by the union of Lithuania, Volhynia, and Kiow under the Jagellons, and the additional territory obtained by the invasions of Moscow, Smolensko, Moldavia, Livonia and Prussia. Thus, countries are conquered by ambitious princes, and lost by their children or grandchildren. The victors become the founders of powerful empires, and in the next generation, the people are governed by strangers. Nothing is more unstable than national greatness. The extent of Poland was not less than 38,000 square leagues, and its population was greater than fourteen millions in 1772, but Poland is now annihilated, and San Marino is not changed.

The constitution granted by Alexander is representative; the diet consists of two chambers; the deputies of the one are elected by the nobles and the provincial assemblies; the senate is composed of ten waiwodes, who are appointed during life by the king, ten *castellans*, who are nominated by the senate, and the same number of bishops.^{de} The power of the monarch is very great, but not incompatible with civil and religious liberty. The privileges of the towns are respected, the condition of the peasantry has been improved, and the execution of the laws is guaranteed, but the Polish laws are complicated and imperfect. The revenues of the crown are estimated at fifty millions of Polish florins (£1,291,667,) and of that sum seven millions are expended on the civil list. The army is wholly national; the number of men is limited to 30,000 infantry and 20,000 cavalry, but it is not yet completely organized.

The country which makes up the republic of Cracow is equal to ninety-four square leagues, and the population amounts to 100,000. The peasants formerly protected by the clergy, were not so poor or ignorant as those in the rest of Poland, and additional benefits have been conferred on them by the present government. The appearance of the country is different; greater labour is bestowed on the roads, the fruitful fields are separated by quickset hedges, and the cottages, though built of clay and the branches of trees, are better whitened without and cleaner within; most of them are shaded by fruit trees.^f Apples, plums, cherries, chestnuts, almonds and peaches are raised in the neighbourhood of the capital.^g

Cracow, once the metropolis of Poland, was the place where the ancient kings were crowned and interred. The cathedral is remarkable for its numerous mausoleums; we may mention the monument of Sobieski, that was repaired by king Stanislaus Augustus, and that of bishop Solyk, in which the prelate is represented on a basso relievo, while the Russians are leading him captive to Siberia. The tomb of Saint Stanislaus is erected in the middle of the church; two lamps burn day and night near it, and masses are continually said over his ashes. Christian piety tries to perpetuate the glorious name of a true saint, who ventured to reprove a victorious monarch, elated with success and corrupted by debauchery, at a time when his baneful example was imitated by his people. Saint Stanislaus Sczepanowski must always be ranked among the great men of Poland;

^a The Polish hufe or hide is nearly equal to thirty acres.—Tr.

^b Starovolski, p. 62. Muller, vol. II. p. 377.

^c "The chamber of provincial deputies (*nuntii terrestres*), elected by the nobility and the assemblies of the people (*tiers-état*.)"

^d The senate consists of thirty members, namely, ten bishops, ten palatines, and ten castellans named by the king for life. *Ed. Encyc.—P.*

^e A castellan or ancient Polish senator held the first rank in the state after the royal family.—Tr.*

* The castellans were senators who held the first rank after the pala-

lines. *Encyc. Method. partie Histor.*—The castellans were senators of the kingdom, but senators of the lower class; in the diets, they sat on low seats behind the palatines or great senators. They commanded a part of a palatinate under the palatine. *Rees's Cyc.* The palatines were not members of the royal family, but simply nobles possessed of a palatinate. The ancient Polish senate consisted of the ministers of state, of the representatives of the clergy, and of palatines and castellans.—P.

^f Carosi, t. I. p. 135. Zollner, t. I. p. 256, 267, &c.

^g Starovolski, Polonia, p. 18.

but it may be doubted that he restored the dead to life. Boleslaus the Bold, in defiance of his miracles, resolved to kill the bishop in his own church; thrice he gave the order to his guard, and thrice they refused to injure so venerable a personage, and to profane so sacred a place. The king himself performed at last the office of executioner; he struck the saint with the hilt of his heavy sword, and stretched him lifeless at the foot of the altar.^a

The population of the town amounts to 26,000 souls; its commerce and manufactures have been long in a state of decay. The university, formerly called the school of the kingdom, though open at present to every Pole, is not attended by many students. The immunities which the inhabitants of Cracow enjoy in all the provinces of ancient Poland, may perhaps be the means of rendering the capital more prosperous.

Two places of some celebrity are situated in the territory of the republic. The tomb of queen Venda may be seen at Mogila, at no great distance below Cracow. That warlike princess refused the homage of all the neighbouring kings. Ritiger, a German monarch, more amorous or more ambitious than the rest, came at the head of an army, and offered war or marriage to the royal Amazon. Venda marched boldly to meet the foe, but after the two armies came in sight of each other, the soldiers of Ritiger refused to fight, alleging that it became them to defend their country, not to interfere in the private concerns of their sove-

reign. The prince, unable to brook his disgrace, or to yield to a woman, laid violent hands on himself, and queen Venda returned in triumph to Cracow. But soon afterwards, either from regret for her past conduct, or from some other cause not mentioned by historians, she resolved to put an end to her existence. After sacrificing many victims to the gods, she threw herself into the Vistula, and terminated her days to the great regret of her subjects.^b The story is more fully related by the Polish chroniclers, and few events recorded in the history of Poland are so well adapted for poetry.^c

No tragical associations are connected with another place in the neighbourhood of Cracow. The town of Krzeszowice, in spite of its barbarous name, is visited by the gay and wealthy Poles. A princess^d erected there a vauhall and different buildings for the convenience of those who frequented the baths. The adjacent country is remarkable for its picturesque scenery. The Kudowa, which flows through the low grounds, waters verdant meadows and fruitful orchards, and the sandstone rocks on the heights, are cut into a thousand different shapes, which exhibit the image of Gothic castles. The white fir rises near those ruins, and the sides of the torrents are shaded by willows; but these retreats on the Sarmatian hills are often rendered inaccessible by rain and inundations.^e The principal spring contains sulphur, magnesia and different neutral salts.^f

^a Zollner, t. I. p. 326. Dlugossi, lib. III. p. 291, 599.

^b In the English edition it is rendered, "not many years afterwards, &c." This is not in the original, nor does it correspond with other authorities. ^c On her return to Poland, after the death of Ritiger, she threw herself into the Vistula, from the fear that her beauty might impel some other prince to disturb the peace of her subjects." Dorville, *Fastes de Pologne*, p. 6. "After she had returned in triumph to Cracow, she offered sacrifices to the Polish

divinities, and then threw herself into the Vistula." Beauvais, *Dict. Histor.* p. 3158.—P.

^d Dlugossi, t. I. p. 55. edit. Gleditsch. Kadlubkon, t. II. p. 609. Sarnicki, p. 1051. Florus Polonicus, &c.

^e "A Princess Lubomirska, by birth a Czartoriska."

^f Zollner, t. I. p. 260.

^f Lafontaine, *Dissertations*, p. 168.

BOOK CXIV.

EUROPE.

Europe continued. Kingdom of Galicia, or Austrian Poland. Polish Language and Antiquities.

THE Austrian possessions in Poland are officially designated *Galitzia* and *Lodomiria*. The last term is only used in public documents; the first has been changed, and a new source of confusion has thus been introduced by geographers themselves. The name of Galicia is the same as that of the Spanish province Galicia.^a It may be as well however to consider a more important subject, the origin and history of the inhabitants. Upper Poland and Red Russia formed together the high country of ancient Poland, and the northern slope of the Carpathian mountains. These regions were peopled at an early age by the *Carpi*, the *Biessi*, the *Soboci* and other tribes, whose names appear to be Slavonic. The *Carpi* were the most celebrated of any in the fourth and fifth centuries, and as they were more correctly called *Carpathes*, or, conformably to the Polish pronunciation, *Krapats* or *Chrabats*, it may be concluded that they were the same people, who extended their sway in the sixth century over *Great* or *White Chrobatia*. That mountainous region, for such is the meaning of its name, was the principal country of the Slavonic hordes that inundated the Roman empire. The western Russians, the *Rusniaky* of the Polish writers, might have been confounded under the vague denomination of *Slavi* or *Slavini*. It is unnecessary to suppose them a colony of eastern Russians, that migrated about the fourth or fifth century from the Dnieper. Their existence, as a distinct nation from the other Slavonians, particularly the Poles, is dated from the year 884, the epoch of the Hungarian migrations, but they must have existed as a people, or formed a mass of inhabitants, long before that period. The Hungarians, a confederacy of Finnic tribes who left the provinces which now make up central Russia, invaded first the powerful state of *Kiow*, but entered from choice or necessity into a treaty with the Russians, by which they agreed to abandon their territory, and to seek a country in a different land. They traversed in peace the two Russian principalities of *Galitz*, or, according to the Polish orthography, *Halicz*, and *Wlodomir* or *Lodomer*; they remained several weeks in these states, and received hostages and considerable re-enforcements. Guided by these Russian nations, the Hungarians crossed the Carpathian mountains by the forest of *Houos*, and settled in the counties of *Ungh* and *Beregh*. The position of two Russian principalities may be determined by their march. When *Wlodomir*, grand duke of *Kiow*, and sovereign of these principalities, made war in 981 against the *Lechs* or *Poles*, *Przemysl* was

the most important place that he gained from the enemy. The Poles, under the command of *Boleslaus*, commenced their conquests by retaking the same town. The history of the frequent wars between the *Kiopian Russians*, the *Poles* and *Lithuanians*, may afford us some information concerning many other places than the capitals of petty states, among others, *Iaroslav*, *Lubaczow*, *Trembowla*, and *Leopolis*, *Lwow* or *Lemberg*; the last town was founded by prince *Leo* in the year 1200.^b The extension of the western Russian nation was at that time nearly as great on the side of Poland, as that of *Red Russia*. *Wlodomir* in *Volhynia* appears to have been the most northern town; it was contiguous to the frontiers of *Black Russia*, at that time subject to *Lithuania*. All the Polish and Hungarian chroniclers agree that *Russia* or *Ruthenia* lay to the north of *Hungary*, from which it was separated by the *Carpathian mountains*. The name of *Gallisia*, *Galitza* or *Gallea* was known to the Arabian geographers, about the middle of the twelfth century, and also to the Byzantine and Icelandic authors. It became gradually confounded with that of *Russia*, and it was by the latter name that the Hungarians ceded the country to the Poles, in the treaties of 1412 and 1423.^c

The history of these states forms a long and tiresome succession of revolutions, in which the Hungarian kings appeared sometimes as conquerors, at other times as avengers and restorers of dethroned princes. It may be remarked, without entering into details, that by the cession of 1423, the king of *Hungary* renounced his rights merely *for the time*, an equivocal phrase that gave rise to fresh contention. But *Red Russia*, the only part occupied by the Hungarians, did not comprehend that portion of *Upper Poland*, which is now incorporated with *Galicia*.

It is obvious from the constitutional law of *Hungary*, and from the oath taken by the princes at their coronation, that if any ancient province be reconquered, it must be united to the kingdom; still, however, *Maria Theresa* having obtained *Galicia* and *Lodomiria* in the name of *Hungary*, governed them as a distinct state. The claims of the diet have remained and are likely to remain ineffectual.

The southern part of *Galicia* is mountainous, but the greatest elevations are lower than those in *Hungary*; none reach to the height of 6000 feet, and few are equal to four thousand. They are more frequently called the *Czerna Gora* than the *Carpathians*; the only remarkable summit is that of the *Babia Gora*, from which may be seen a great part of *Galicia*, *Poland* and *Silesia*. The *Babia Gora* is separated from the *Tatra mountains* in *Hungary* by a lofty

^a The former in French, is *Gallicie*, and the latter *Galice*. Both are usually spelt alike in English.—P.

^b *Lemberg* is the German name of the town.

^c *Suhm*, *Memoir on Galicia and Lodomiria*, in the *Transactions of the Society at Copenhagen*, XI. p. 471.

plain; it is composed of "primitive foliated sandstone," and its summit is probably higher than 4800 feet,^a for it is above the zone of the *Pinus pumilio*.^b Some mountains situated on the frontiers are still higher; their summits or peaks are formed of compact limestone or grauwacke. The sides of the Babia Gora and of other heights in the country to the south of Cracow, are nearly perpendicular, and large pieces of rock are sometimes detached from them.^c The most of the mountains in Galicia are apparently composed of sandstone,^d but extensive layers of carbonated iron and beds of rock salt may be observed in different directions. The lower hills are generally formed of clay, but masses of bituminous sandstone^e are not uncommon in many of them.^f Meadows and peat grounds are scattered over the alluvial lands along the vallies of the Dniester and the San, below Sambor and Iaroslau. A narrow belt of moving sand extends from Cracow to Lemberg, and red resinous pines are the only trees that grow on it.^g The country from the neighbourhood of Lemberg to Komorno on the west, and to the frontiers of the kingdom on the east, forms an argillaceous ridge^h abounding in lakes. The heights that crown the ridge, are called the Biecziad mountains.ⁱ

Galicia is exposed from its position to the northeast wind, which blows from the central table-land of Russia, and is often accompanied with excessive cold. The soil is very humid, and the quantity of rain that falls during the year, is much greater than in any of the neighbouring countries. Inflammatory and bilious fevers are not common diseases, but rheumatic and nervous fevers, phthisis, dropsy, syphilis and plica, remind the traveller of all the plagues in Poland. The Galicians and Poles eat the same coarse and unwholesome bread, both drink too freely of ardent spirits, and the want of good physicians is severely felt in the two countries.^k

Grain forms a very important part of the produce, and the whole province, in as much as relates to its culture, may be divided into three almost equal parts. The first is composed of mountains and marshes over which the plough can hardly pass; the second is formed by plains of sand that sometimes yield late harvests;¹ the third is made up of good arable land, in which the ordinary return is as five or six to one. Leguminous plants and almost every kind of grain are cultivated, but the most common crops are wheat, oats and buckwheat.^m The best lands are those in the districts to the east of Lemberg, and in some parts of the circle of Belzk. Winter grain is seldom sown in the sandy or mountainous regions, and its return in that part of the country is never greater in good seasons than three or four to one. The wheat is exported, the oats and buckwheat are consumed by the people, and the potato, which has been introduced of late years, is now common in the circle of Jaslo.ⁿ Asparagus, water melons and other plants grow spontaneously and in abundance. Vineyards

were planted in the neighbourhood of Lemberg, but the rigour of the climate, although under the same parallel as Paris, compelled the inhabitants to abandon the culture of the vine. The quantity of tobacco raised annually varies from twenty to thirty thousand quintals. Flax and hemp are generally cultivated, but chiefly in the district of Przemysl; the linen made in the country is coarse, and the demand for it is confined to the province. A plantation of rhubarb near Makrotin contains upwards of 40,000 plants.

There were more than a million of oxen, and nearly 300,000 horses in the country about twenty years ago; but the horses were small and ill kept. The breed, however, has been much improved of late years, and the horses for the Austrian cavalry are mostly imported from Galicia.

Several thousand lakes or ponds well stocked with fish, are situated in different parts of the province; the largest are in the district of Lemberg; some of them are not less than a league in length and in breadth, and the revenue derived from them has amounted to 60,000 florins.^o

The iron mines, though not very valuable, have been improved by the Austrian government; it is stated that they yield forty thousand quintals of crude iron. Copper is wrought at Poschoryta, and lead mixed with silver at Kerlibaba. Marble is found in the circle of Stanislawow, or the ancient Pokutia. The town of Halicz or Galicz was so called from its salt springs; the term has been extended to the whole kingdom, and we are thus perhaps enabled to account for the name of the ancient *Halizones*. Salt is extracted from twenty-six springs in Galicia, but fossil salt is much more abundant, and it is worked in the famous mines of *Bochnia* and *Wieliczka*.^p

Hills flattened at their summits extend along the northern side of the Carpathian chain throughout its whole extent. The first stratum in these heights consists for the most part of clay, and sometimes of gypsum; below it is a layer of fine and humid sand, which is succeeded by a bed of sandy marl; the fossil salt is found under the marl, and in some places in the midst of it. The sandy stratum is seen on the surface of the plain from Cracow to Lemberg, and the hills of clay commence at the height of a hundred and fifty or two hundred feet above the level of the Vistula. Fossil salt or salt springs are observed wherever excavations of moderate depth have been made, and sulphureous and bituminous springs rise near the mines of *Bochnia* and *Wieliczka*.

The Polish historians and geographers maintain that the mine of *Bochnia* was discovered in the year 1351. The merit of the discovery is attributed to Saint Cunegunda, a Hungarian princess, the wife of Boleslaus the Fifth. Although the early accounts are mixed with fable, it is probable that Hungarian miners were sent by the queen into Ga-

^a "Height, 700 or 800 toises."

^b Schultes' Letters.

^c Rzaczynski, Tract. III. sec. I. art. 2.

^d "Grès houiller," sandstone of the coal formation.

^e "Grès lignite," sandstone accompanying brown coal.

^f Carte Géologique de Beudant. Comp. Schultes.

^g Zollner's Travels, &c. I. p. 255.

^h "Plateau," table-land. This word, which is frequently translated *ridge*, properly signifies an extensive tract of elevated country, with a flat summit; sometimes crowned, however, with chains or ridges of mountains. The table-land, here mentioned, divides the sources of the Bog and Dniester from the streams that flow into the Vistula.—P.

ⁱ The Biecziad mountains, according to Rzaczynski, commence at Gorlice, and, according to Dlugossi, at Soby.

^k Schultes, Letter XVII.

¹ "They are rarely employed in the cultivation of winter grain."

^m Rzaczynski, p. 67, 68.

ⁿ Hassel, XI. p. 433.

^o Starovolski, p. 36. Opalinski, Pol. defensa. The number of fish ponds in eastern Galicia is equal to 3859.

^p The following are the best accounts of the mines. Anonymous paper in the transactions of the Royal Society of London, July, 1760; see the German translation with notes in the *Hamburgisches Magazin*, vol. IV. no. III. p. 275. Schober's Physical Description, &c. Hamburg. Magazin, vol. VI. no. II. p. 215; the author was the director of the mines. Mémoire de Guettard, membre de l'Académie des Sciences, 1763. Observations, &c. by Bernard, in the Journal de Physique, 1780. Description, &c. by Hansen, inspector of the mines, published by Zollner in the *Berlinisches Magazin*, first year, no. III. p. 54. Schultes' Letters, in the *Annales des Voyages*.

licia.^a But the mine was neglected or imperfectly known before the year 1442, and the works at Bochnia are now less extensive than those of Wieliczka.^b Moczinsky stated the produce of both the mines under the Polish government, to have been equal to ten millions of Polish florins, and that the expense of working them absorbed nine-tenths of that sum. But, in consequence of the improvements introduced by the Austrians, the net produce is not less at present than two millions of German florins.^c The mine of Bochnia, says Schöber, consists of a long subterranean passage which is 750 feet in breadth from north to south, 10,000 in length from east to west, and not less in some places than 1000 or 1200 in depth. The salt at the entrance of the mine is crystallized, and in veins; it is finer than that at Wieliczka, and the best kind is found at the greatest depths. No part of the mine is damp, alabaster is observed in several places, and the workmen often find peices of black and decayed wood. The salt is broken into small fragments, and put into barrels.

The mines of Wieliczka are divided into three parts, namely, St. John's, and the Old and the New Fields. The town is not only completely undermined, but the works extend on every side of it, or 6000 feet in the direction from east to west, and 2000 from south to north. The depth beneath the lowest part of the valley is about 800 feet. Such are the dimensions mentioned by Busching, but according to Hansen and Zollner, the length from south to north is equal to 1,100 *lachter*,^d the breadth from east to west to 400, and the depth is not greater than 123. Ten pits are connected with the mines, but that of *Wodna-Gora* serves as an outlet for the water, which filters from the high ground; no spring flows from any part of the excavations. A winding stair of four hundred and seventy steps was constructed in the pit of *Leszno*, by order of king Augustus III. The cost of the work amounted to 40,000 Polish florins.^e Travellers descend the pit of *Danielowitz* by means of ropes, and on their arrival at the first mine, they are struck with the size and cleanliness of the alleys and vaults. Chapels and altars cut in the salt, and adorned with the image of a saint, or a crucifix, before which a lamp continually burns, are seen in the different passages. The chapel of St. Anthony is more than thirty feet in height. Many of the chambers are very large; some are filled with barrels of salt or forage for horses, and others are converted into stables. There are seldom fewer than twenty or thirty horses in the mines; but the number depends on the quantity of salt that is exported in different seasons. If water passes along the floor or the roof, crystallizations are formed and heaped above each other in thousands; when these places are lighted by many torches, the spectacle is brilliant, but not so dazzling as might be inferred from the descriptions of some ancient travellers.^f

The air is wholesome, although a nitrous gas is formed, which rises to the roof of the vaults, and is sometimes inflamed by the approach of torches; it is called *saletra* by the miners, and emits in burning a pale red light. Seven hundred workmen are employed, but none of them pass their lives in the mines, as some credulous writers and travellers affirm. Accidents are not of frequent occurrence; large pillars of salt are left at certain distances to support

the roof, but notwithstanding these precautions, part of the works fell in 1745. Fires were occasioned by negligence in 1644 and 1696; a long time elapsed before they were extinguished, and most of the scaffoldings were destroyed. Salt is found in large and shapeless masses in the two first stories, and the workmen may cut blocks of three, four and five hundred cubic feet. Three different kinds of earth or rock are observed. The first is a dark gray marl, humid to the touch, and mixed in some places with gypsum. *Zielona* or green salt is deposited in the stratum; it contains a small portion of marl, a circumstance that accounts for its colour. Several varieties of the same salt may be enumerated; *spisa* is of a grayish colour and is generally used in the country, *lodowaty* or glazed salt is combined with chalk, and *jarka* is a saline sand. The second kind is an unctuous marl, that abounds in shells, and the third is composed of impure salt, gypsum and pyrites. It is in the *zuber* or last mixture, that the rock salt and crystallizations appear; they assume the form of cubes or rectangular prisms. These deposits rest on a layer of marl and lime, below which is the *szybakowa* or regular stratum of fossil salt, the purest and most compact of any. The beds alternate with clay, slate and gypsum; their direction is from west to east, but they incline towards the south, and consequently towards the Carpathian mountains. The upper part of the saline strata resembles a sea from its undulations, while the base or lower part seems to form a perfect level.^g

Lemberg, Lwow or Leopold,^h was formerly the capital of Red Russia, and it is at present the metropolis of Galicia. The place is large; the streets are spacious, well paved, and cleanly kept; they form a remarkable contrast with those of the other towns in the country. The public buildings and many private houses add to the imposing appearance of the city, and are likely to excite the wonder of travellers accustomed to the mean towns in Poland. The phenomenon may be perhaps attributed to the proximity of Constantinople; at all events, Greeks often found refuge at Leopold during the thirteenth century.ⁱ There were at one time seventy-two churches in the city and suburbs, but the number was reduced to twenty during the reign of Joseph II., which is still sufficient for a population of 50,000 individuals, among whom are 13,232 Jews, and as many Greeks and Armenians, that frequent their different places of worship, and participate, like all the Galicians, in the blessings of religious liberty. The ramparts are now changed into streets or public walks, and Lemberg carries on an advantageous and profitable trade with Russia, Turkey and the other neighbouring countries.

"You may see," says an able traveller, "a metropolitan and a superintendent, a Greek and a Latin bishop, an Armenian pontiff and a great rabbi living together on friendly terms. The utmost harmony prevails, and if the discipline be relaxed, it is also improved, for many catholic priests abandoning celibacy for the holy bonds of wedlock, are not less respected on account of their wives and numerous offspring, although the same privilege is forbidden to their brethren in other countries. The manes of Joseph II. seem to protect the land, and the fruits of his reign are public liberty and religious toleration."^k

^a Dlugossi, lib. VII. p. 719. Sarnicki, Chorogr. voce Bochnia.

^b Carosi's Travels, t. I. p. 182.

^c "Austrian florins (florins de Vienne.)" The Austrian florin is 2s. 4d. sterling; that of Bavaria 1s. 9d.—*Ed. Encyc.*

^d A measure of five feet.

^e Zollner's Travels, I. p. 281.

^f Carosi, t. I. p. 173.

^g Zollner, p. 292, 296, &c.

^h "*Laroc*, in Polish, and *Leopol*, in latinized Polish."

ⁱ Bladimir (Wladimir,) regent of Galitza, was the friend of the emperor Manuel. Andronicus lived in exile at the court of *Ierosthabus* (Jaroslaw,) another prince of the same country. Cinnam. lib. IV. c. II. lib. V. c. XIV—XVI. Nicetas, tom. I. p. 68, 69.

^k Schultes' Letters, (Anciennes Annales des Voyages.)

The rest of Galicia may be divided into two portions, which in their relation to ethnography and history are wholly distinct. The first of these divisions forms a part of Little Poland, and is inhabited by Poles. *Rzezow* and *Tarnow*, two towns on the plains near the Vistula, are each of them peopled by four or five thousand individuals; both carry on a trade in linen and different manufactures, and the value of the articles sold or exported annually from Tarnow amounts to 1,200,000 florins. *Podgorza*, a modern town protected by privileges and immunities, lies opposite to Cracow. The wealth of *Andrichow* and *Kenty* is derived from their linen; they are situated at the base of the Babia Gora. *Biala* is built in the same part of the province, and its cloth is sold throughout Galicia. The towns in the Carpathians are *New-Sandec*, *Gorlice*, which is sometimes called Little Dantzic on account of its trade and manufacturing industry, and *Krosno*, a place of 5000 inhabitants, and the mart of the Hungarian wines. A great quantity of iron is wrought in the mining villages in the valleys watered by the Upper San.

That part of Galicia or of the former Upper Poland is inhabited by two distinct people. The *Mazuraks* or the natives of the plains resemble the other Poles, but the *Goralis* or mountaineers are very different.^a

They appear to be a peculiar people, distinguished from the other Slavonians by their lighter make and more expressive features; but their small eyes and prominent cheek bones indicate their connexion with the Slavonic race. More lively and robust, more docile and cunning than the Slavonians in the plains, their ancient enmity against them may be repressed, but it is not diminished. The lowlanders of past times let no opportunity escape of harassing the mountaineers, who, irritated or driven to despair, often invaded the plains and laid waste the lands of their oppressors. Their enemies rarely ventured to approach the mountain passes; those who were so bold, seldom or never returned. These incursions have been checked during the Austrian administration, and by the punishment of many Goralis, the rest have been intimidated. Although prohibited from carrying the axe, they still appear with it on their mountains, but it is no longer employed for an unlawful purpose, and every traveller may now visit the country, or reside in it without danger. The axe is a national weapon, which the Goralis handle with great dexterity; they can hit any object with it at the distance of forty yards. The same weapon is considered an ornament; the people never lay it aside during their games or the dance.

The mountaineers return from the plains about the beginning of winter, but they seldom gain enough to provide for their subsistence. It often happens that they are obliged to leave their cottages, and to seek elsewhere for a livelihood, after having passed the summer in tending their flocks on heaths and in deserts.

Those who migrate, and the number is not inconsiderable, are more fortunate; they follow the trades of weavers, hucksters and pedlers, and are scattered in every part of the Austrian empire. The hemp and flax raised on the mountains are very coarse, and perhaps not worth the trouble of cultivating, but the indigence of the inhabitants compels them to submit to any sort of labour. The household furniture made by the people is sold in the plains; its cheapness is its only recommendation, but it is doubtful if

people willing to purchase it, could be found in any other country than Poland. The wood of which the different articles are made, is every day becoming more rare. The soil is too sterile for the production of wheat; oats, barley and buckwheat succeed, but the culture of the last grain is not well understood by the mountaineers.

The bread consumed in the country is made of oats, which the people grind in handmills, the coarse flour is mixed with part of the chaff, and a cake without leaven and without salt is baked under ashes. The form of the *platski* or cakes is circular, generally about a foot in diameter, and half an inch in thickness. Their coarse bread, potatoes, cabbage, milk, butter and cheese, make up all the food of the Goralis. Constant health and great longevity are the rewards of their frugal diet. Schultes saw several persons that had reached their hundredth year; and the same writer observed one individual of a hundred and twelve, labouring in his field with as much activity as a young man of twenty. That extraordinary person, who had married for the third time, had a son, at the age of a hundred and ten, and the chastity of his wife, it is added, was above reproach.

The dress of the Goralis is not costly; indeed every man is his own tailor, weaver and shoemaker. Each individual dresses his own leather, and attaches the different pieces in the same shoe with thongs, according to an ancient method, which has been long abolished in civilized countries. The summer dress consists of coarse hempen drawers and a shirt of the same kind, that is worn above the drawers, and bound round the waist with a belt. White drawers made of coarse woollen cloth, and a brown pelisse of the same substance, form part of the winter costume. The men weave and full their cloth, which is said to be impervious to rain. Thus, the Goralis might be wholly independent of their neighbours, were they not obliged to purchase their hats in the adjoining town of Makow.

The eastern part of Galicia is inhabited by a people of Russian origin. *Przemysl* and *Jaroslaw*, two towns worthy of notice, were formerly the residence of grand dukes or princes; both are situated on the San, and each of them possesses a population of six or seven thousand souls. *Przemysl* is defended by a strong castle on a rock. *Jaroslaw* is built on a hill, and its principal ornaments are the church of Panna Maria or the Holy Virgin, and the romantic site of the ancient college of the Jesuits. The northern districts are well cultivated, and the great majority of the inhabitants are husbandmen. *Belz*, however, forms an exception, for its trade consists chiefly in potash. The privileged town of *Brody* on the northeast frontier is peopled by twenty thousand individuals,^b of whom more than a third are Jews. A great trade is carried on with Russia; the Israelites have endowed a college and a commercial seminary, but their own houses are mean, dirty and ill furnished. *Sambor* and *Drohobitz*, two towns in the south, may each of them contain 7000 souls;^c the people in the one are employed in manufacturing and bleaching linen, and if the commerce of the second is improved, it must be attributed to the synagogue. The population of *Halicz*, the ancient capital of Galicia, is not more than 4000, and consists chiefly of Jews belonging to the sect of the Karaites; their ancestors were settled in the country before the 12th century, for the Byzantine writers mention among the allies

^a Schultes.

^b "16,000 to 20,000." Population 24,000, of whom 17,000 are Jews. *Morse*.

^c "Sambor 6000—Drohobitz more than 7000."

of the emperor Manuel, the *Chalissii* who adhered to the Mosaic law.^a *Stanislawow* is a place of much greater importance, indeed if we may judge from the plan that has been published, it is likely to become the principal fortress in the province. The flourishing town of *Sniatyn* is situated in the district between the Pruth and the mountains of *Pokutia*;^b its population amounts to six or seven thousand, and it much frequented on account of its fairs, at which oxen, horses, honey, wax and other articles imported from Moldavia are sold.^c *Kutty* is partly peopled by a colony of Armenians, who are employed in dressing Morocco leather.

The people in these central and eastern districts, although many of them now speak a dialect made up of the Russian and Polish, are descended from the *Russinie* or *Rusniaks*, who were thus denominated by the Poles to distinguish them from the *Roszenie*, *Moscowali* or Great Russians. Those who inhabit Hungary have been already mentioned, and the following account of their countrymen in Galicia is taken from the work of a modern traveller: "I was struck with the appearance of the inhabitants, and convinced that they were originally a different horde of the Slavonic race. The Rusniaks are less civilized but less corrupt than the Galicians; the same people are not so good husbandmen, but more frugal and laborious. The Galician women never handle the distaff while they tend their flocks, but it is the common occupation of the Rusniaks. The latter profess the Greek religion; their curates are permitted to marry, but being worse paid than the other ecclesiastics, and having besides to maintain a family, many are obliged, like St. Paul, to labour with their own hands. Their preaching is not in vain; their precepts are enforced by the example of an industrious and well-spent life. The churches are not widely different from those in the Catholic villages; three bells of different dimensions are suspended from each of them,^d and the simple inhabitants thus indicate the three persons in the Trinity; it is probable too that they do not believe in their equality, for the large bell is said to be in honour of God the Father, God the Son is represented by the second, and the third is emblematical of the Holy Ghost. Such is the explanation I obtained from the people themselves."

The inhabitants of *Pokutia* have mixed less with the Poles than the other Rusniaks. The *Houcoles* or shepherds on the Carpathian mountains retain many barbarous customs, which have hitherto been imperfectly observed.

Galicia, like the whole of Poland, remained long in a state of barbarism, the consequence of civil discord and Turkish or Cossack invasions. Devastated towns and villages in ruins were the monuments of former wars. The traveller is still apt to imagine himself beyond the limits of Europe; he is nowhere sure of a bed, and is every where exposed to great privations. The beer in the country is a sort of turbid vinegar; the wine is perhaps as sour, and a glass of it cannot be purchased for less than a florin. The stranger may quench his thirst at the limpid and cold springs in the mountains, but bread is not to be had in the higher districts, and the only articles that can be procured, are oaten cakes mixed with chaff, and ardent spirits, the poison of the Poles. Many go out of their way to gain a

town, but they are not certain of being admitted into an inn, and those may consider themselves fortunate, who are allowed to dress their own victuals, or to purchase a few eggs for ten times their value.

The country has been improved under the Austrian government, and since the settlement of the German colonists, who now amount to 72,000 individuals. Civilization has thus been advanced, but there are many obstacles, which cannot be easily overcome. The peasants are ignorant and slothful; slavery seems to deprive them of intelligence and courage. All the land in the country is possessed by the nobility and a few free labourers. The wealthy lords are the proprietors of domains more extensive than many German principalities, but those to whom the care of their estates is committed, are for the most part men of broken fortunes, who have been forced to fly from Germany or Bohemia. The stewards rob their masters so effectually, that they are enabled in the course of a few years to give up their office, or to purchase the lands which they formerly managed. Some princes and nobles are not deceived by these strangers, but they let their land to farmers, who exhaust the soil by raising from it in two years, what ought not to have been produced in a period of ten.

The poorer nobles cultivate their own farms, and are perhaps as industrious as any class of men in Galicia, but they are ill educated and ignorant of rural economy. Want of foresight or a desire of gain often tempts them to sacrifice the future to the present; forced harvests are reaped, and the ground remains long unproductive. The habits and patriarchal manners of the poor nobles may entitle them to respect, but otherwise, the only difference between the master and the peasant consists in the right of property which the one possesses over the person of the other. Such men are not likely to benefit their country, the wretched state of Galicia is owing to the ignorance of the inhabitants, hands enough are not wanting to labour the fields. It unfortunately happens that the clergy are as bigoted and superstitious as any in Europe; to enlighten the curates is a hopeless task. The royal domains have been long ill cultivated; a better system is now introduced, and it is to be hoped that it may extend to other parts of the province. The Austrian ministers may in time learn wisdom from experience; though anxious to promote the happiness of the people, they fear innovation, every foreign improvement, in short, whatever is not German. To perfect the work that is already begun, it might be necessary to improve and extend the system of education, to strengthen and develop the national institutions.

Considerable progress has been made in the different arts. Linen is manufactured in the mountains and on the Silesian frontiers; greater attention is now paid to the fineness of the cloth; though formerly coarse, it was of a good quality. The different woollen goods form another important branch, and the art of dyeing cotton is as well understood at *Nawsie* as in the Levant. Glass is exported from *Lubaczow* and other places; fifty forges have been erected in the neighbourhood of *Wieliczka*, the iron is well wrought, and the same sort of industry is diffused in the higher districts. The arts of dressing leather, whitening wax, distilling spirits, and making nitre and potash, are sources of wealth

^a Cinnamus, lib. IV. c. VIII.

^b *Pokutia*, land of penitence, or of exile, according to Sarnicki, Chorog. Polon. But the etymology is refuted by the fertility of the country.

^c Starovolski, p. 40. Muller.

^d "Each of their churches has three steeples of different sizes; the largest representing the Father, the second the Son, and the smallest the Holy Ghost."

in different towns. The exports are conveyed by the commercial road, the work of Joseph the Second, and one of immense value to the province. The Galician nobles spend their money at home; few repair to the court at Vienna, or travel in foreign countries.

The exports of Galicia and Bukowine are principally consumed in Austria and Moravia; they amount to twenty millions of florins, and consist mostly of salt, grain, cattle, horses, raw and dressed hides, wool, wax, tallow, tobacco, flax and hemp. The total population of the province is not less than 3,800,000, and it furnishes recruits to eleven regiments of infantry, four of light cavalry or *uhlans*, and a battalion of chasseurs. The maintenance of these troops is a great burden to the country, for the revenue seldom exceeds 10,000,000 imperial florins, (£1,042,000) and it is always inadequate to the expenditure.^a Galicia might surpass most states in industry and wealth; commerce is free, the taxes are moderate, and nature is lavish of her gifts. But the outlets for the redundant produce have been diminished since Prussia obtained the navigation of the Vistula, and the progress of civilization is retarded by the degraded state of the peasants, and the influence of Jewish usurers in almost all the towns.

Bukowine is united to Galicia under the official name of the *circle of Czernowitz*, but its provincial states are distinct, and its population is very different. It may be inferred from its name, which signifies the country of beech trees, that the climate is not the same. The picturesque sides of the Carpathians are covered with forests of beech, pine and fir trees; the vine grows in the low grounds, and the vallies watered by the *Moldava*, the *Sereth*, and the *Pruth* are fertile in fruit, pasturage and corn. Numerous salt springs, the gold carried down the Bistritza, lead mixed with silver at Kirlibaba, the copper of Poschoryta, and the iron of Iakobeny, are the mineral riches of the country. *Suczawa*, once the residence of the Moldavian *despots*, and a town of 80,000 inhabitants in the 15th century, is not at present peopled by more than 5000.^b *Czernowitz* and *Sereth* are equally insignificant. The population of Bukowine amounts to 200,000 individuals, and most of them are *Moldoveny*, a branch of the Walachians, members of the Greek church, and subject to the authority of their *boyars* or lords. German, Armenian, Jewish and even Magiar colonists are settled in the province. The *Philippons* or *Lippovany* adhere to the ancient rites of the Russian church, but their ceremonies and tenets are imperfectly known. Harassed by the Tartars and the Russians, they were forced to leave the Crimea, and to implore the protection of Joseph the Second. The emperor granted them an asylum, and the people were soon distinguished by their probity, frugality and peaceful lives.

Bukowine was the ancient country of the Moldavians. A Polish army of 80,000 men having besieged Suczawa in 1496, was repulsed and wholly defeated by the troops of the hospodar Stephen the Great. Twenty thousand nobles were taken prisoners; the conqueror bound some to the plough, and compelled others to sow beech nuts on the field of battle. The beech is called the bloody wood by the Walachians, who believe that the Saviour's cross was made of it, and the Turks also use it in impaling their victims;

hence the word Bukowine may also mean the land of blood.^c When the Austrians had invaded or retaken Galicia, an able report was written by a superior officer, conformably to the instructions of Joseph the Second. It results from the document, "that the possession of Bukowine is necessary to protect the Austrian provinces, which front Poland and Muscovy. The same country forms a line of military communication between Galicia and Transylvania, the advanced bulwark of the empire, and gives Austria the command of the most advantageous positions, in the event of a war with the Turk or the Muscovite."^d The above reasoning is correct, and the Austrians determined to keep the province which they had already conquered. The Turks consented to the occupation, because they expected the assistance of the emperor in the war against the Russians. The hospodar Ghika protested solemnly against the dismemberment of Moldavia, but the next day he was secretly beheaded, an event that revealed the policy of the Porte.

The principal divisions of former Poland, according to their actual names, have now been described. The grand dutchy of Posen shall be more fully mentioned in another part of the work; it is too much connected with Prussia, (even in a geographical point of view,) to be included in the present chapter.

The Polish language is allied to the Russian, the Bohemian, the Wend, and the Slavonic dialects of Illyria; but it resembles the Bohemian more than any other, and both are distinguished by harsh sounds^e and crowded consonants. The Polish, however, is not incompatible with harmony, but the difficulty of the pronunciation cannot be easily overcome by strangers; it is harmonious, when spoken by the natives, nay more, an imaginative writer^f has compared the conversation of Polish ladies to the warbling of birds. The sonorous majesty of the Russian is more adapted for music, but the Polish is rich in grammatical forms, figures and inversions, and well fitted for every sort of style. Long neglected or rather superseded by the Latin, no attention was bestowed on it, but it has in later times become the language of poets, orators and historians. The different dialects have not yet been distinguished with sufficient care. The Mazurak is said to abound in Lithuanian words, but it is probable that these words were used by the ancient Poles. The dialect of the Goralis is very harsh; it may perhaps be more closely connected with the Bohemian or Croatian. The Upper Silesian and the dialect spoken by the Cassubians in Pomerania are branches of the Polish. Little is known concerning the transition from the same language to the Russian, in the eastern districts of Galicia.

The mass of the Polish nation is descended from the ancient Lechs, the same people as the Lygii of Tacitus, and the Licicavians of the middle ages. But the warlike and adventurous colonies of the Goths, particularly the Western or Visi-Goths, were settled at an early period on the banks of the Vistula, and formed perhaps in many places the dominant race. The clear complexion and the regular features of the Polish nobles seem to strengthen the supposition, which is almost confirmed by the title of the nobles, a title that is unknown in every other Slavonic language. The *szlachcics* were partly composed of foreign conquerors, and

^a "The supply of these recruits is the greatest tax upon the country, for the revenues do not exceed 10,000,000 imperial florins, and there is always a surplus above the expenditures."

^b "It contained 16000 houses in the 15th century, and at present only 1000."

^c "— *forêt de sang*," forest of blood."

^d See Schlätzer, *Staats-anzeigen*, I. p. 38—59.

^e "Hisling sounds (*sons sifflans*)," sibilants.

^f The author, in the original.—P.

identified in the course of ages with the native aristocracy, the *zemianin* or possessors of land.^a It may be concluded from the nature of the population that many revolutions must have taken place in the country, that many warriors, such as *Krakus*, must have appeared among the Gothic hordes, before the peasants or husbandmen chose *Piastus* for their king. The dates are not preserved, but the history ought not for that reason to be considered fabulous; it is unfortunately too true, for the appendage of dates is disregarded by barbarous tribes. The monuments of national worship, monuments that serve to illustrate the character of nations, have been lost in the chaos of revolutions. Gnesna, Cracow and Wilna were called sacred towns, but it is impossible to derive information from so vague a term, and no distinct attribute is attached to any of them. Perun himself, the great Slavonic deity, held no distinguished rank in the Polish mythology. Biel-Bog and Czernobog were adored by the Sorabians^b and Silesians; it cannot be affirmed that they were worshipped by the other Poles. *Iess*, says the historian Dlugosz, was the god of thunder; his name is certainly connected with others in the Celtic and Etruscan. *Dziewanna*, the goddess of life and youth, *Liada*, the god of war, *Lelo*, *Polelo* and many other Polish divinities, are distinguished by Slavonic names. *Nia*, the god of death and the abyss, who was worshipped by the people at Niamts in Silesia, and probably at Niemts in Moldavia, is also connected with the mythology of the eastern Slavonians. Fewer traces are left of the worship of the Wends or Baltic Slavi, in Poland; their rich temples, numerous idols and less barbarous notions appear to have been unknown in the interior of the continent. History preserves with capricious care, not the names of the great divinities, but those of all the *Zemopaci* or earthly spirits, from the god of cherries and nuts, to the god that kindles and extinguishes the fire. Many of their names were derived from the ancient Lithuanian or some Slavonic dialect anterior to the Polish. The horde of gods that peopled the houses from the cellar to the dormitory, seem to have formed a part of a very early superstition in the north and east of Europe. It may be that several systems of mythology prevailed in Poland, but it would be rash to arrive at any conclusion, until the worship and its relation to other creeds be more fully examined; the boldest system-makers have been wise enough to suspend their judgment on the subject.

One important truth may be established, a truth of which several historical writers appear to have been ignorant. The Sarmatians were not the ancestors of the Poles. The former were a conquering tribe that invaded Scythia or southern Russia, and a great portion of the Ukraine, Galicia and Moldavia, and governed these countries nearly three centuries. The natives were not expelled, but the victors, like the Turks, gave their name to the vanquished and tributary states. The first Sarmatians mentioned in history were sprung, according to Herodotus, "from young Scythians and Amazons or warlike women."^c Whether that origin be fabulous or not, the father of history considered the Sarmatians as a colony of Scythians, who inhabited the country on the east of the Tanais, perhaps be-

tween the lower Wolga and Caucasus, who spoke a Scythian dialect, corrupted by the language of their mothers, and retained several remarkable customs, among others, that of being accompanied in battle by women armed with two-edged axes. Hippocrates, a cotemporary of Herodotus, considered the Sarmatians as a Scythian people that differed from the other Scythians, because their women used the bow and the javelin; but in other respects, his account of the Scythians is applicable to the Sarmatians. "The people are swarthy, short and fat, of a relaxed and phlegmatic temperament; the women are not fruitful, but their slaves being lean give birth to many children."^d The Greeks were struck with their small and lively eyes, and compared them to those of lizards; hence the incorrect etymology of their name, which was corrupted into *Sauromatae*. The Roman authors had better opportunities of observing the nation, and they rejected the Greek derivation.^e The names of several Sarmatian tribes, as the *Thisomatae*, *Iaxomatae* and others, are distinguished by the same final syllables. It is almost certain that these syllables had a common signification, and the meaning of *Madai*, Medes or men, is so obvious and occurs so frequently in the ancient languages of Media and Persia, that it can hardly fail of being admitted. The hypothesis accords well with the opinion of the ancients, who considered the Scythians and Sarmatians as a Median people. It has been seen in a former part of this work, that the Scythian words, which have been preserved, belonged probably to the Zend or to a dialect connected with it.^f The people subject to the empire of the Scythians, or exposed to their devastations, some of whom purchased protection by paying tribute, were Slavonians and Finns. It is comparatively of little consequence that they were then unknown in history by their present names.

A great revolution took place; Mithridates, the Asiatic Hannibal, formed the ambitious project of penetrating into Italy by the northeast, a project which was accomplished at a later period by the Cimbrian and Gothic nations.^g That general excited the Sarmatians to cross the Tanais, and to overturn the Scythian empire. Their migrations commenced about the year 81 before the vulgar era, and were continued upwards of a century. The Sarmatians overran, laid waste and partly conquered all the countries bounded by a line drawn from the Tanais to the Transylvanian mountains, and by another line extending also from the Tanais, and terminating near the mouth of the Vistula. Pliny alludes to these invasions; he says that "the Scythians have disappeared, and their country is now occupied by Germans and Sarmatians." It is difficult to imagine how compilers of history and geography could believe that the Sarmatians, "a swarthy race, an unfruitful people," occupied the immense space which Sarmatia covers on the ancient maps. As well may the names of Russia, Turkey and former Poland be considered the boundaries of distinct people, while they mark only the limits of empires. Is the Greek a Turk, the Magiar an Austrian, the Finn a Russian, or the Basque a Frenchman, or were the Italians Goths under Theodoric? The answer to these questions

^a *Szlachcic* is pronounced *schlagh-tchitch*; it is nearly synonymous with the French word *gentilhomme*, which differs from gentleman in as much as it is only applied to nobles; the same term corresponds with the *shlatic* and *schlatic* of the German writers in the tenth century. [It also corresponds with the German word *geschlecht*, family, race. "*Geschlechter*, in Nuremberg, signifies men of family."] *Linde's Polish Dictionary*.

^b The Slavonians of Lusatia.

^c Herod. IV. c. CX—CXVII.

^d Hippocrates, de Aeribus, &c.

^e Dionysius Periegetes calls them the *Sarmatae*.

^f See p. 489 of this volume.

^g Bayer, *Conversiones Rerum Scythicarum*, in the *Memoirs of the Academy of Petersburg*. Diodorus Siculus, lib. II. c. XLIII. p. 156. Edit. Wessel.

is not doubtful. In like manner, the Slavonic people between the Oder and the Vistula, or the *Lygii* in the plains, the *Mugilonas* on the hills, the *Naharvali* in the marshes, the *Carpi*, *Biessi* and other tribes on the Carpathians, the *Venedi* or Wends in Prussia and Lithuania, the *Fenni* in Polesia and Black Russia, and the other Finnic hordes in central Russia, retained their national existence, their language and customs, although they became for a time the subjects of the Sarmatians.

Had the Sarmatian empire a centre or principle of unity, or was it composed of independent *khanats*, feebly connected with each other? What provinces became the country of the Sarmatian colonists? When were their hordes confounded with the populous and continually increasing Slavonians, the fair people, the race indigenous to Europe? What share had the Goths in the latter revolution? What was the fate of the Sarmatians that migrated after the destruction of their empire, and were protected by the Romans? Additional information may be derived from the consideration of these questions; but it ought first to be admitted that the Sarmatians were a conquering tribe, distinct from the inhabitants of the countries over which they ruled.

It is thus that they are represented in history at the time when they invaded Pannonia, about the year 375. "The Sarmatians conquered by the Roman general Theodosius, were forced to implore the clemency of the emperor Valentinian. The deputies were presented before him, the prince heard them, and asked indignantly why better looking men had not been sent. The ambassadors answered that they were selected from the chosen men of their nation. 'O unfortunate Rome, exclaimed Valentinian, when such abortions dare invade it!' At the same time, he struck his

^a Striliter, *Memorie*, II. p. 29.—"His eyes, his voice, his colour, his gestures," says Gibbon, "expressed the violence of his ungovernable fury; and,

hands, groaned loudly, and fell lifeless from a paroxysm of rage."^a

Such were the *short, unwieldy* and *swarthy* Sarmatians of old Hippocrates. The Slavonians, as described by Procopius, were tall, well made and robust. They are so still. Mistaken vanity retains the common phrase, and the Poles style themselves *the descendants of the illustrious Sarmatians*

Statistical Table of Galicia.

Census of 1818	3,760,319
Increase in six years at a half to the hundred	112,806
Population in 1825	3,873,125

Different Classes of the Inhabitants in 1817.

Families	889,334
Males	1,796,385
Females	1,920,307
Clergy	4,234
Nobles	31,006
Functionaries	4,420
Commercial class	11,513
Male peasants	353,419 (too low)

Nations in 1817.

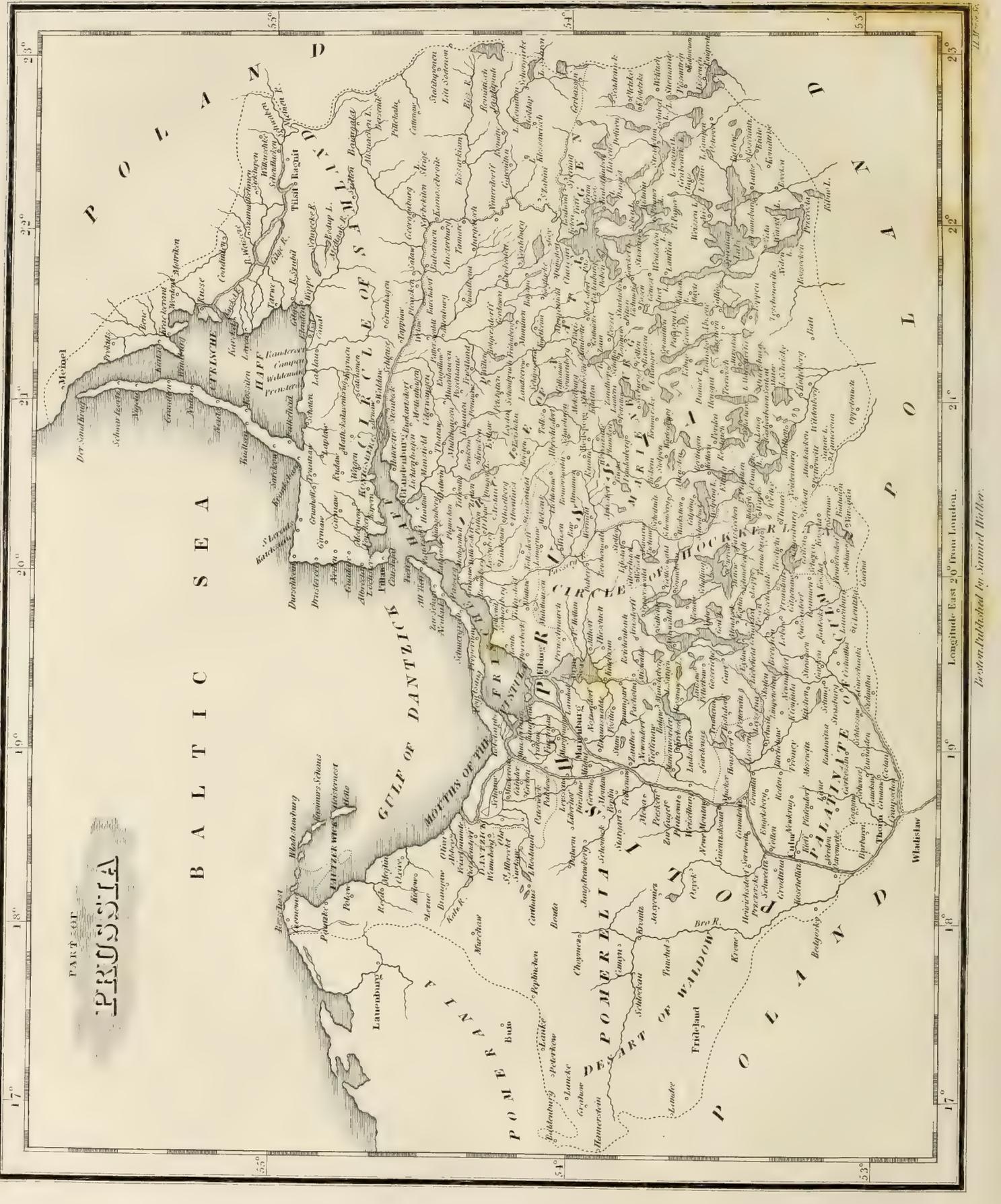
Poles (in the western districts)	1,659,800
Rusniaks (in the eastern)	1,689,650
Walachians	192,000
Jews	205,000
Germans	72,000
Philippons	8,800
Armenians	5,800
Zigeuns	2,000
Greeks	550

while his whole frame was agitated with convulsive passion, a large blood vessel burst, and Valentinian fell speechless into the arms of his attendants."

PART OF
PRUSSIA

BALTIC SEA

GULF OF DANTZIG



Longitude—East 20° from London.

Printed and Published by Samuel Walker.

BOOK CXV.

EUROPE.

Europe continued. Kingdom of Prussia and the Grand Duchy of Posen. Historical account of the ancient Pruczi and the Teutonic Knights.

THE ancient Æsty, Venedi and Guttones formed before the tenth century, a mixed Wendo-Gothic people, that inhabited the countries watered by the Vistula on the west, and the Niemen on the east. They were denominated Pruczi,^a but it is not probable that their name was derived either from the *Borussi*, a much more eastern tribe, or from the Slavonic term Po-Russians, which signifies the neighbours of the Russians; for at the early period of which we speak, they were not in the vicinity of that people. Their name may, with greater probability, be derived from some ancient Wendish word, allied to *prusznika*, a term which signifies hard and clayey land, and is not inapplicable to the interior table-land of Eastern Prussia.

They were divided into different tribes, of which the following are not wholly unknown: namely, the Pruczi proper, called also *Sembes* or natives, in *Samland* or the ancient *Wittland*; the *Natangi*, or inhabitants of the woodlands, on the south of the Pregel; the *Nadravi* and the *Szalawoni*, along the Niemen; the *Sudavi*, who were probably the same people as the *Sudeni* of Ptolemy, and who emigrated during the thirteenth century into Lithuania, in the south-eastern part of Eastern Prussia; the *Galindi*, or *men with large heads*, who are expressly mentioned by Ptolemy, and who occupied, so late as the fourteenth century, the southern portion of Eastern Prussia; the *Urmi*, *Ermi* or *Wermi*, who were perhaps of Finnic origin, and who gave their name to the province of Ermeland; the *Pogesani* in the country round the Frisch Haf, and the *Pomesani* on the lower Vistula. The Lithuanians and Samogitians were of the same origin as the Pruczi, and they were all descended from the ancient Venedi or Wends, but these last mingled with other Gothic and Finnic tribes, who perhaps obtained a temporary dominion over them.

The language of the ancient Pruczi fell gradually into disuse during the thirteenth, fourteenth and fifteenth centuries, and was no longer spoken in the seventeenth.^b It differed from the Lithuanian, only as one dialect from another, and the ancient Wend was the common source from which both were derived.^c That language, which we have termed the Proto-Wend, was probably spoken from time immemorial on the shores of the Baltic, for the trade in yellow am-

ber, which appears to have been as ancient as the earliest dawn of history, was carried on, about the commencement of the vulgar era, between the *Venedi* on the Baltic, and the *Venedi* on the Adriatic, a proof of a very ancient intercourse^d between the inhabitants of the two countries.

The Pruczi were subject to the person that presided over their common worship.^e The *Kriwe* or supreme judge was also the high priest, the great sacrificer. *Romowe* was the place of his residence; its site, although doubtful, was not perhaps far distant from the central province of Natangia, or from the place where, at a later age, the monastery of the Holy Trinity was erected.^f The *Kriwe* assumed the title of *Kriwe Kriweyto*, or Judge of Judges; his office was elective, and he was chosen from among the priesthood. Instances are not wanting of some of them having sacrificed themselves in their old age for the salvation of the people. The names of the different *kriwes* are mentioned by Hartknoch,^g and Brudeno or Pruten is supposed to have been the first.^h It is believed that he lived in the fifth century, and according to another account he is represented as the brother or cotemporary of *Waidevut*, a Scandinavian hero or demigod who founded their religion. It is not, however, unlikely that two different traditions have been confounded, the one relative to an ancient foreign invasion, the other connected with events purely national. To prove that this was the case is impossible, on account of the darkness in which the history of this people is enveloped.

The *kriwe* had under him a numerous band of priests or magicians initiated in the different mysteries of the worship. The *Siggenotes* held an important rank, but the nature of their office is very imperfectly known; their name perhaps signifies *Sigs-Genoten*, the companions of *Sigge* or Odin, and if it does so, it appears to strengthen the opinion concerning the Scandinavian origin of the Prussian priesthood. The *Waidels* and *Waidelottes*, or the priests and priestesses, possessed great authority over the people; one or more of them resided in every village, and it was from them that the Christian missionaries met with the most obstinate resistance. Their name recalls that of *Waidevut*, and is probably derived from the same root with the Sanscrit words, *veda* or *vidia*, science or knowledge, and *vedavali*, a legislator, and with the Danish, Saxon and German words, *vide*, *weten* and *wissen*, to know, and the Greek and Latin words, *eidein* and *videre*, to see. The *Wayones* breathed on the sick, and

^a Their name is pronounced *Prutsi*, and it is written by different authors, *Prutzi*, *Pruteni* and *Brutzi*.

^b "The language of the ancient Pruczi was forcibly repressed, in the 13th, 14th and 15th centuries, [by the Teutonic knights,] and finally became extinct in 1683."

^c "It should be considered as directly descended from that of the Venedi or ancient Wends."

^d "Parenté," kindred, affinity.—P.

^e "The Pruczi had no other bond of national union than the hierarchy who presided over their common worship."

^f Hartknoch, *Alt und Neu Preussen*, 1684, pages 11, 116, 125.

^g Grunau, cited by Hartknoch.

^h "There is still extant a list of *kriwes* (^g) from Brudeno or Pruten, the first of them, who is believed to have lived, &c."

cured them of their diseases, and it has been inferred^a that their name bears some analogy to *vayou* or wind in Sanscrit.

Their customs may serve to throw some light on the early part of their history; the Wend women sacrificed themselves^b at the tombs of their husbands, and a perpetual fire burned in the house of the *kriwe*. It is not perhaps improbable that what has been considered a confused assemblage of the idioms and institutions of different nations, that existed in the middle ages, is a relic of one of the most ancient languages and religions in Europe.

If little information can at present be obtained on the subject, it is owing to the barbarous care, which the Christians took in destroying the monuments or rather the traditions concerning the religion of the Wends. Nothing certain is known even of the principal divinities of that people, for although some authors mention a sort of trinity, which was composed of *Perkumos*, the god of light and thunder, *Pikollos*, the god of hell,^c and *Potrimpos*, the god of the earth, fruits and animals, there is reason to believe that the worship of the people consisted chiefly in the adoration of the sun, moon and stars, and also of different animals, which were held sacred in different districts.^d Some animals, such as lizards, frogs and serpents, were even considered sacred in Lithuania during the seventeenth century.^e

These apparent contradictions may be reconciled by the supposition of two doctrines, the one for the people, founded on the worship of animals, the other reserved for the priests, and exhibiting in allegories the powers and resources of nature. But it is only the followers of the *mystico-symbolical* system of Heidelberg, that can undertake to explain by the numbers three and twelve, the relations of so many divinities, whose very names are hardly known, and by no means understood. *Kurkho* appears to have been the divinity that raised the fruits of the earth, and presided over the rural feasts, *Pergubrios* was the god of the groves and the woods, *Waizganthos* protected the culture of hemp and flax, *Perlevenu* taught men the use of the plough, and *Perdoyt* received the offerings of fishermen.^f The rural festivals, which were common to them with other barbarous nations, accorded with the rudiments or simplicity of their faith. Part of the harvests was consecrated, and on these occasions it was customary to offer sheep and goats in gratitude to the divine bounty; but these festivals were too often sullied by the sacrifice of human victims.^g The first missionaries and some of the Teutonic knights were tortured and put to death; it may, however, be urged in extenuation, that they themselves provoked the natives to commit such crimes, by overturning their altars, prohibiting the exercise of their religion, and compelling them to become Christians.

The sanctuaries of the ancient Prussians and Lithuanians were chosen in the solitude of woods and vallies; many of their trees were sacred.^h The oak at Romowe, famous on account of the miracles and fables with which it is connected, was levelled to the ground by the missionaries. Another at Thorn served as a station of defence for a com-

pany of knights. A man on horseback, it is said, could turn in the hollow trunk of an oak at Welau, and it is affirmed that two Margraves of Brandenburg made the attempt, and succeeded before a great number of people; the same tree fell from old age in the sixteenth century. Two sacred lime trees were held in great veneration; one of them about six milesⁱ from Rastenburg, has given its name to a Catholic pilgrimage, and the Prussian and Lithuanian peasants, in the sixteenth century, used to repair to the other, and offer sacrifices to their deities.

The Pruczi were commended by Adam of Bremen, for their humanity to those who suffered shipwreck; they seem to have lived under the government of a great many independent rulers, whose authority was limited and shared by the people as well as the priests. Their flocks, corn and honey afforded them abundant provisions; they made strong drink from mare's milk, and clothed themselves with furs, in which they carried on an advantageous trade with the neighbouring nations. The houses of their chiefs were made of wood; their fortresses on the frontiers were built of the same materials, but the courage of the inhabitants was their best defence. Their greatest enemies were the Poles, at that time little removed from the savage state; they made incursions into their country, carried off their children, and laid waste their fields. Hospitality was the virtue of the ancient Pruczi; the peaceable stranger was always welcome, but none were permitted to enter their sanctuaries, or to approach the sacred trees under whose shade the images of their gods were adored. If any ventured to do so, the offence might be punished with death. The same people, says an historian, "have blue eyes, fair hair and a ruddy complexion," a description which is not very applicable to the Samogitian and Lithuanian peasants, who are believed to be the only unmixed descendants of the Pruczi; but it is likely that the fair inhabitants, sprung from the Guttones or Goths, formed the dominant class. A distinction of lords and vassals is proved by many events that occurred during the wars between the Prussians and the Teutonic knights; at the same time, it is not less certain that mere slaves could never have defended themselves with so much valour.

Their government, of which the stability depended on the priesthood, was not assuredly exempt from the ordinary imperfections of human societies; but it may be inferred from the silence of history, that they continued longer than the neighbouring nations in a state of comparative prosperity. Their obscure tranquillity was not often interrupted until the end of the tenth century, at which time the zeal of the missionaries discovered among them a new field for their exploits. The Prussians having put to death, in the year 997, one of those missionaries who attempted to change the worship of their fathers, the Polish princes, who had lately become Christians, made use of that pretext to take possession of a country which offered them many advantages. Boleslaus the First, avenged the death of Saint Adalbert, and devastated Prussia with fire and sword. But

^a By the author, in the original.

^b "Burnt themselves."

^c From *piklo*, which signifies hell.

^d Pierre Duysbourg, cited by Hartknoch.

^e Most authors have supposed erroneously, that *givoitor* signifies exclusively serpents; it is a Lithuanian word which signifies animals in general, and it corresponds with the Polish primitive *zyvot*. See Dict. trium linguar. by Szyrid.

^f "*Kurkho* was the divinity of aliments and rural banquets, *Pergubrios*

promoted the vegetation of plants and trees, *Waizganthos* that of hemp and flax, *Perlevenu* aided in tracing the first furrow, and *Perdoyt* received from the fishermen an offering of fish in a barn."

^g "These festivals were characterized by the consecration of the harvests and domestic animals, and by thanksgiving for the fruits of the earth. Those of the three great divinities were attended with the sacrifice of animals and even of human victims."

^h "Their sanctuaries were only consecrated places in the shade of aged oaks and limes." ⁱ "2 leagues."

that violent method of conversion was not attended with success; the Prussians maintained their freedom, and adhered to their superstition. The same people gained a signal victory over the Poles in 1163, and invaded several provinces on the Vistula. Waldemar the Second, king of Denmark, having unfurled the red and white banner of the holy cross,^a subdued in the beginning of the thirteenth century, the greater part of Livonia and Prussia; the latter country remained faithful to him, even after the year 1227, when he lost all his other conquests. The Prussians revolted against the weak successors of Waldemar, and soon became very formidable to the Poles. The Polish princes, unable to check their invasions, implored the assistance of the Teutonic knights, a religious and military order, which originated during the mania of the crusades, and of which the chief duty was to subdue the infidels, if they refused to listen to the sermons, or be converted by the miracles of the missionaries. The Sword-Bearers, another order of knights, had already settled in Courland, and the adverse fortune of Waldemar the Second afforded them the means of wresting from him a part of Livonia. It was then that the Teutonic knights were invited into the country of Culm, which was made over to them by Poland. A hundred knights, under the command of Hermann of Balk, were the first settlers, and commenced the subjugation of Prussia with a degree of courage that was only equalled by their cruelty. Their capital or principal station was transferred to Thorn in the year 1230, and it was from that place that they made continual invasions into the territory of the Prussians. So judicious a choice is the best proof of the military genius of their chiefs. Their policy too is not less worthy of admiration; by force and address they made, within the period of 53 years, the complete conquest of a country that had resisted for four centuries the victorious arms of Poland. Three times the Prussian nation revolted, and as often a few thousand knights triumphed over an ill-armed people. The Prussian nobles were too often disunited, and some were base enough to betray their country. The provinces conquered one by one were bridled by strong castles, which the vanquished were compelled to build. The grand master fixed his residence in 1309 at Marienburg, a fortress that has since resisted the shock of artillery; its thick walls and massy vaults, the large central pillar, and the halls filled with antiquarian and historical monuments, are often visited by strangers.^b

About the same period, the German language, which was spoken by most of the Teutonic knights, was introduced into Prussia. The ancient Pruezi, some of them converted, others driven into Lithuania, no longer maintained a contest, which was accompanied with many disasters. The nobles that had been baptized, were admitted into the Order, and the people exchanged their state of vassalage for a much more rigid slavery. The numerous German colonies, that were invited by the Order, built flourishing towns, to which almost republican privileges were granted. Thus, were gradually formed the three orders of provincial states, of which the diets were composed, the sovereignty remaining in the hands of the Teutonic knights. The prosperity of the Order was the chief cause of the pride, depravity and licentiousness of the dif-

ferent members; indeed the same vices characterized all the societies of the same sort, composed of the nobles of every nation, for the most part united by fanaticism and the love of plunder. The tyranny of the Teutonic knights became so insupportable that the inhabitants chose rather to submit to the yoke of the Poles. This event gave rise to a long, though sometimes interrupted war, in which the Order lost its military glory, and at last its independence.

The decline of the Order may be dated from the battle of Tannenberg, which was fought in 1410, and in which a very great number of the knights were slain. Not long before, under the grand master Conrad of Jungingen, the order possessed Esthonia, Livonia, Courland, Samogitia, Prussia, Pomerelia, and the New Mark. In Prussia alone, were contained 19,000 villages, 55 towns, and 48 fortified castles; its revenues amounted to the sum of 800,000 Rhenish florins. The army commanded by the grand master Ulric of Jungingen, which encountered that of King Jagellon, at Tannenberg, was not less than 83,000 men, and 40,000 of that number were slain. The remains of the same army met at Marienburg after the defeat, and there were found only three knights of so distinguished a rank as to entitle them to be eligible to the office of grand master. This was not the first time that the ambition of the grand masters had risked the welfare of the order. The grand master Wallenrode had assembled at Kowno, in the year 1394, an army of 20,000 soldiers belonging to the order, and 46,000 foreigners, for the purpose of conquering Lithuania. The knights met on the banks of the Niemen, and were invited to an entertainment by the general. Cotemporary writers state that a servant or waiting-brother held a small canopy of cloth of gold above every knight, that all the dishes and drinking-vessels were made of gold or silver, and that each guest was permitted to carry away his cup and plate after the feast.^c But in a few months afterwards, the same army, like that of Napoleon, crossed the Niemen in the most deplorable condition; an epidemic disease cut off those who had escaped the sword of the enemy.

The ruin of the order seemed to be the necessary consequence of the battle of Tannenberg. The small number that had met at Marienburg were besieged by Jagellon, and all the provinces hastened to submit to the victor. But two men, Henry Reuss, the new grand master, and Conrad Lezkau, burgomaster of Dantzic, saved the knights from destruction. Lezkau, faithful to ungrateful tyrants, brought them reinforcements and formed alliances. He thought that the order, taught by adversity, might respect the laws and privileges of the towns; he prevented them from plundering the peaceable inhabitants, and protected the citizens against their oppression. The knights in return resolved to put him to death. The grand master concerted measures with one of his relatives, a commander of the order, who persuaded the unsuspecting Lezkau to accompany him to a fortress. The executioner refused to fulfil his task, and knights were found base enough to assassinate the very man who had saved their order. That crime opened the eyes of the people; Dantzic, Elbing, Thorn and other towns, as well as the nobility of several provinces, entered into a league against them in the year 1440. The whole of

^a The *Danchrog* or *Danenburg*.

^b See Busching's Description of the Castle of Marienburg.

^c "The knights were all invited to an entertainment on the banks of the Niemen; thirty courses were served in dishes of gold and silver, and

behind each knight a servant-brother held a canopy (*parasol*) of cloth of gold; the drinking vessels were all of gold, and were offered as a present to the guests."

Western Prussia revolted in 1454, and placed itself under the protection of King Casimir IV., who confirmed the privileges of the inhabitants, and the country formed in reality a state wholly independent of the republic of Poland, which was subject only to the king in person, and which had its separate diets. The disastrous war, which was the consequence of this revolt, lasted thirteen years, and in the course of it, that part of Prussia, which had remained under the authority of the knights, was laid waste by the Poles. It is said that nearly 2000 churches were destroyed, and out of 21,000 villages, 18,000 were reduced to ashes.^a The peace concluded in 1466, confirmed the Poles in the possession of Western Prussia, which since that time has been called Polish or Royal Prussia, by geographers. The Teutonic knights were suffered to retain the remaining part by acknowledging themselves the vassals of Poland.

Such a state of dependence must have been insupportable to an order which had been accustomed to consider itself a sovereign power. The knights attempted to withdraw themselves from their allegiance by negotiations, and when these were not attended with success, they had recourse to arms. A fresh war, that broke out, continued six years, and was terminated in 1525 by the peace of Cracow, which annihilated the power of the Teutonic order, and changed completely the constitution of Prussia. Albert, margrave of Brandenburg, the grand master of the order, was acknowledged in this treaty as the hereditary duke of Prussia, under the sovereignty of Poland. Thus terminated an empire founded in violence, and which had existed for three centuries; from a rank almost equal to that of sovereigns, the Teutonic knights descended to the condition of nobles.^b

Albert introduced the Lutheran religion into Ducal Prussia, and founded the university of Königsberg in 1544. The elector Joachim Frederick added in 1618, the dutchy of Prussia to the states of the electoral house of Brandenburg, which has since that time kept possession of it. By the treaty of Wehlau in 1657, the dutchy of Prussia was raised to the rank of an independent sovereignty by the elector Frederick William. His son and successor, Frederick I. assumed of his own accord, and by his own authority, the title of king in 1700. Poland was the only power which for a long time refused to acknowledge his title.

The kingdom of Prussia rose from the ruins of the Teutonic order, but it sunk into insignificance during the Swedish and Russian wars in Poland. The population in 1700 did not exceed 700,000 souls, and at least a sixth of that number was cut off by the plague in 1709.^c Frederick William I. invited a colony of 20,000 protestant Salzburghers, who fled from the persecution of their fanatic bishop. These colonists were followed by others from Switzerland, Alsace and the Palatinate. But the progress of the population was anew retarded by the Seven Year's War, and according to the census of 1775, Eastern Prussia, or the whole kingdom, as it existed in 1772, contained only 785,000 inhabitants.^d It was then only a vain title which the electors of Brandenburg derived from the possession of Prussia. A great change has taken place since 1772; at the division of

Poland, the king obtained the former Polish Prussia and the district of Netze, both of which contained a population of only 416,000 souls, but by this means, a commercial intercourse was opened between Prussia and Brandenburg, and the exports of Poland were rendered dependant on the Prussian government.

The industry, population and prosperity of the country continued to flourish, until Frederick William II. influenced by ambition and his notions of aggrandizement, imagined that he could strengthen his state by extending his dominions. Poland was destroyed by two new partitions, and two new provinces wholly peopled by Poles, were added to the kingdom; the one was called Southern Prussia and the other New Eastern Prussia. From the year 1795 to 1806, the superficial extent of the kingdom was not less than 56,000 square miles,^e and the number of inhabitants amounted to 4,045,000, namely, 964,000 in Eastern, and 817,000 in Western Prussia, 1,387,000 in Southern, and 877,000 in New Eastern Prussia.

Napoleon set out from the banks of the Seine, and overturned the frail edifice erected by Frederick the Great.^f Almost all the conquests in Poland, and a part of those made by Frederick himself, were detached from Prussia, and the kingdom was reduced nearly to its ancient limits.^g The conquered territory was not altogether restored after the defeat of Napoleon;^h part of the district of Netze was included in the new grand dutchy of Posen, which is formed by the western extremity of Southern Prussia. A national or Polish government was secured to that grand dutchy by the late treaties, and it is no longer united with the kingdom of Prussia. The kingdom contains within its present limits about 16 or 1700,000 inhabitants, of whom 300,000 are Poles, and 3 or 400,000 Lithuanians, or descendants of the ancient Pruczi. The population of the grand dutchy amounts to 900,000 souls, and the number of Germans is not less than 160,000. The two countries have no political connexion with the German confederation, and on that account they are sometimes denominatedⁱ the *non-Germanic States* of the Prussian monarchy. They are entitled, under the name of Provincial States, to their representative assemblies, and, consequently, their deputies are likely, at no distant period, to appear at the congress of the states, which are subject to the king of Prussia.

The physical geography of Prussia resembles that of the Sarmatian plains, or the ninth physical region of Europe, which has been already explained in the description of Poland. The sandy but fruitful plains in Poland extend across the province of Posen, and, becoming gradually less fertile, occupy the whole west part of Western Prussia. Heaths are succeeded by marshes, and the coast on the Baltic is terminated by downs which unite with those in Pomerania. But the nature of the soil is very different in ancient Prussia, or in the country between the Vistula and the Memel. The low land on the banks of these two rivers is fertilized by inundations; at a greater distance from them, a clayey or argillaceous ridge^k is covered with forests, or studded with lakes; hills are scattered in different directions, but the highest or the *Galtgerben* near Kumehnen, is only 506 feet

^a "Only 3013 escaped the flames."

^b History of Ancient Prussia by Baczko and Kotzebue.

^c Sussmilch, (Göttliche Ordnung, l. 320,) supposes that twice the number died of the plague.

^d Busching, Erdbeschreibung, volume ii. p. 11.

^e "8000 sq. leagues."

^f "A conqueror, from the banks of the Seine, overturned this frail edifice."

^g Eastern Prussia contained in 1809 only 835,000 inhabitants. Hassel's Statistical Tables.

^h "At the resurrection of the monarchy, the limits of western Prussia were not fully restored to what they were in 1806."

ⁱ In the original.

^k "Plateau." table-land.

above the level of the Baltic.^a None of the others are more than 300, and the steep heights by which the coast is bounded, vary from 150 to 200 feet.

The Niemen or the Lithuanian *Nemony*^b rises in Lithuania, and throws itself by two branches, the *Russe* and the *Gilge*, into the maritime lake of Curisch Haf. The German name of the Niemen is derived from the town of Memel, which is built at the outlet of the same lake. The Pregel, in ancient Prussian, the *Prigolla* or *Prigora*, or the river of the hills, is formed by the outlets of the lakes in the interior of Prussia; it is enlarged by the addition of the *Alle*, a considerable stream, and flows into the Frisch Haf. The Vistula, the Polish *Wisla* and the German *Weichsel*, divides itself into three branches, one of which retains its name, and enters the Baltic on the north of Dantzic, another, called the *Old Vistula*, pours its scanty streams into the Frisch Haf, and the third or the *Nogat* flows into the same lake. Geographers have been led to suppose, and not without probability, that the Vistula is not so deep as it once was; it is certain that it may be forded in the vicinity of Thorn.

Two lakes, the Frisch Haf and Curisch Haf, which have been already mentioned, may be considered among the most remarkable phenomena in the physical geography of Prussia. The word *haf* signifies a sea in the Danish and Swedish languages. That word, imported perhaps at the conquest of Waldemar the Second, is now applied on the coasts of Prussia and Pomerania, to denote all the lakes that are situated at the mouths of the Oder, the Vistula, the Pregel, the Memel and other rivers. They cannot be strictly termed gulfs or bays,^c for the water is fresh, nor lakes, for they have a direct communication with the sea by navigable straits.

The largest in Prussia are the Curisch Haf and the Frisch Haf. The latter, or the fresh water lake,^d is about sixty miles in length, and from six to fifteen in breadth.^e It is separated by a chain of sand banks from the Baltic sea with which it communicates by a strait called the Gatt. The depth of the strait does not exceed twelve feet, and as the Frisch Haf itself is still more shallow, the commercial advantages that might be attributed to the lake from its position on the map, are apt to be overrated. The Curisch Haf is not less than sixty-six miles in length, and its breadth varies from fifteen to thirty.^f The *Curisch Nerung*, a tongue of land, divides it from the open sea; it is narrower, but more elevated than the one which confines the Frisch Haf. The sand banks and shallows in the lake are so numerous that it is only navigable for boats, and they too are opposed to frequent hurricanes. The Curisch Haf is so called from the ancient Cures or Koures, who inhabited its banks, and who in their Esthonian-Finnish dialect, gave the name of *Menta-Niemi*, or promontory of pines, to the narrow tract by which the lake is separated from the open sea; hence some Greek traveller, whom Pliny copies, called the same promontory the *Mento-Nemen*.^g The fishermen, that reside on the banks of the lake, still call themselves Cures. The climate is tempestuous, and their frail cottages are sometimes buried under heaps of sand.

^a Hassel, Géographie de Weimar, III. 533.

^b *Nemony*, an adjective that means tranquil, or invariable, from *niemowny* or *nie mienny*.

^c "Lagoons," like those of Venice.—P.

^d "Haf," i. e. the fresh sea.

^e "20 by 2 to 5 leagues:" 70 by 3 to 10 miles (Ed. Encyc.) 63 by 13 miles (Morse).—P.

It has been supposed that these lakes were formed by the sinking of the land, and the inundations of rivers, and it has also been maintained that they are the remains of the Baltic, for, according to some hypotheses, that sea covered at one time part of Prussia and Poland. From the comparatively late period of which any knowledge can be gained from history, it can only be inferred that the Baltic sea, swollen by extraordinary tempests, has made some irruptions, that its waters have crossed and covered for a time the *Nehring*, and that a change of position has thus been occasioned in the mouth of the *Gatt* or the strait that joins the Frisch Haf with the sea. It is certain indeed that in 1394, the mouth of the strait was situated at Lochstett on the north of Pillau,^h and it is not improbable that Pillau was then an island.

But the great revolutions, which it is imagined the soil of Prussia has undergone, must have taken place at an epoch anterior to history, and probably to the existence of man. In those remote ages, the most remarkable production of Prussia was formed, the one, which for more than three thousand years, has excited the curiosity of naturalists, and the avidity of traders. *Succin* or amber is a substance to which hitherto no fixed place has been assigned in the empire of nature. It is uncertain even at present, whether it belongs to the animal or vegetable kingdom; almost all writers agree that it forms no part of the mineral kingdom. It is a sort of solid bitumen, very light, of a vitreous fracture, and of a milk white or wine yellow colour; when rubbed, it attracts light substances; it is combustible, evaporates and diffuses an agreeable odour. *Succin* is that sort which is more or less crystallized and transparent, and amber, that which has a less vitreous fracture, and a more earthy appearance.ⁱ The same substance was called *glar* or *glas* by the Goths, and the *Glasiswoll* or palace with walls of amber, is a magical creation in a mythology, that is probably more ancient than that of Odin. *Electron* is the Greek word for amber, and, on account of its quality of attracting light bodies when it is warmed by friction, the terms, electric force, electricity and others of a like kind have been derived, so that an insignificant fossil has given its name to the most imposing and terrible phenomena in nature.

The opinions concerning the origin of amber are very many and contradictory. Heinitz, in a memoir which he published on the subject, supposes that its formation must be attributed to forests submerged by the ocean, and afterwards covered with sand; the resinous particles were distilled into amber, and the rest of the wood formed a residuum or *caput mortuum*. The same writer supports his opinion by an experiment of Wolf, the celebrated chemist of Dantzic, who succeeded in making artificial amber from the root of a tree, by a process which lasted several years. But what the particular tree was, is not mentioned, and the details of the experiment are not explained. Girtanner affirms that amber is formed by a large ant, while others imagine that it is produced by a whale or some other aquatic animal. Although its origin is uncertain, it is known that amber must have passed from the fluid to the solid state, for foreign substances, such as leaves, insects, fish, frogs,

^f "22 by 5 to 10 leagues:" 60 miles in length, with a mean breadth of 10 miles (Ed. Encyc.)—P.

^g "Æstuarium oceani *Mentonomon* nomine." Plin. Hist. Nat. lib. XXXVII. cap. II.—P.

^h Nanke's Travels in Prussia, I. p. 43.

ⁱ The distinction between *succin* and amber (*ambre*) belongs to the French language. The author remarks that this distinction is now nearly obsolete.—P.

drops of water, and pieces of wood, are often contained in it.

A very high price was given for amber or rather pure *succin* by the ancients; it was considered as valuable as gold and precious stones, and the Phœnicians were the first who navigated the North Seas in quest of this substance. Its value is at present much diminished, but in some manufactories, for instance at Stolpe in Pomerania, and Königsberg in Prussia, workmen are still employed in making from it small jewels, scented powders, an acid spirit, and a fine oil that is used as a varnish.^a Part of the raw material is exported by the Danes and Italians, who gain a considerable profit in manufacturing it. Turkey is the staple market for the commodity; the trade is in the hands of the Armenians, and a certain portion of amber is carried every year to the holy Kaaba at Mecca. The quantity which is found in Prussia amounts annually to at least two hundred tons, and the revenue which the crown derives from it, is equal to three or four thousand pounds.^b

The raw material is obtained on the Prussian coast between Pillau and Palmnicken, a tract of land about eighteen miles^c in length. It is only, however, after violent north and north-west winds that any large quantity is driven to the shore. Quarries have been opened at Dirshkemen in the hills near the coast, and their produce is less variable. The same substance is deposited at other places in the interior of Prussia, and the largest piece of amber, which has been yet seen, was found at Schleppecken, about twelve German miles distant, on the Lithuanian frontier.^d The high hills of Goldap, at the distance of seventy-five miles^e to the south-east of Königsberg, abound in amber, and it might also be obtained from the heights along the valley of the Vistula in the neighbourhood of Thorn and Graudenz.

Rye, barley, wheat, Prussian manna,^f millet, buckwheat and peas are cultivated in Prussia. The culture of the potatoe is carried to as great an extent in Eastern Prussia as in Ireland, and it forms in both countries the principal sustenance of the people. A small volume, written by a citizen of Gumbinnen in Eastern Prussia, was published in 1792;^g among other economical discoveries, the author mentions a great many methods^h of using potatoes; he made them into candles, spirits, bread and starch. Hops and tobacco flourish in many parts of the country, and the culture of culinary vegetables, although less common than in Germany, is by no means neglected. The produce of the fruit trees is not sufficient for the consumption of the inhabitants, and a great quantity is every year imported. Hemp and flax are two articles of considerable exportation; the former thrives best in the western, and the other in the eastern provinces. The agricultural produce of the maritime provinces, their trade in corn, and the ordinary methods of farming, shall be fully examined in a different chapter.

The forests consist of oak, lime, elm, alder, pine and birch trees, but the large and lofty oaks are not so common

as they once were in Prussia. Potash and tar are still exported. More than seventy different speciesⁱ of fish frequent the rivers and the lakes. Eels and *murænæ* are dried and exported, and caviar is obtained from the sturgeons in the Frisch Haf.

The bear and the elk, the wild boar and the stag are still seen in the woods and the forests, but the *urus* has disappeared. The horse, the noblest of the lower animals, has been much improved in these countries. Two different kinds may be distinguished: the one of Tartar origin is common in Lithuania and Poland; the other sprung from German, French, Neapolitan and Danish horses, was brought into Prussia by the Teutonic knights. Of these two sorts, the former is supposed to be fleetier, but not so sure-footed as the other. All the royal studs in Eastern Prussia have, since the marshes of Stalluspahnen^k were drained, been removed into that district, which is now called Stutamt, and of which Trakhemen is the principal town; there are probably more horses in that establishment, than in any other of the kind in Europe. It might, however, tend to promote agriculture, if the great number of stallions, which are kept there, were scattered over a wider extent of country. A third sort, which is small, short-legged, but swift and hardy, is used in some of the provinces; it is believed to be the remains of a native race, common at one time to Prussia, Lithuania and Scandinavia.

In the account, which we are about to give of the different towns in Prussia, our principal stations shall be Königsberg on the Pregel, and Dantzic on the Vistula.

Primislaus the First, king of Bohemia, advised the Teutonic knights in 1255, then his allies, to build a strong castle, which they named *Königsberg* or the royal mountain; it is called *Krolewicz* or the royal town, by the Poles, and *Karalauzuge* by the Lithuanians. That capital of the kingdom is about fifteen miles^l in circumference, but a great part of it consists of gardens, and in some places of marshes;^m the present population does not exceed sixty-five or seventy thousand souls. The numerous quarters into which the town is divided, are surrounded by ancient ramparts, that may perhaps be considered ornamental, but are not certainly in any way useful for its defence. *Kneiphof*, one of the finest, is built on an island in the Pregel, and Busching mentions that the wooden piles on which the fortificationsⁿ rest, are now become as hard as stone. The castle is a very ancient building, and the view from one of its turrets extends over the Frisch Haf, the port, the river, the town, and a great part of Prussia. The ancient citadel is now almost surrounded with manufactories and store houses. The harbour has not more than twelve feet of water, and that part of the Frisch Haf with which it communicates, is still more shallow, so that the cargo of every large vessel is brought to the town in boats. Trade, however, particularly that in corn and timber, has not decreased; there are besides different manufactories, but that of amber is now fallen into decay. The university was

^a Amber gives over by distillation, an acidulous water (acetic acid,) and then an oil, at first thin and transparent, but gradually becoming darker and thicker. *Amber varnish* is made by dissolving roasted amber in fixed or volatile oil. The acid of amber, or succinic acid, sublimes during the process of distillation, and is afterward crystallized by solution and evaporation.—P.

^b "70 or 80,000 francs"—8000*l.* *Ed. Encyc.*

^c "Nearly 6 leagues"—25 miles. *Ed. Encyc.*

^d That piece of amber is fourteen inches in length and seven or eight in breadth; it is kept in the Museum at Berlin.

^e "25 leagues."

^f See p. 596.

^g The author says that he saw the volume in 1792, not that it was published in that year.—P.

^h "72 methods."

ⁱ "79 species."

^k Stallupœhnen, p. 141, of the Eng. ed.

^l "Nearly 4 leagues."

^m "—rempli de jardins, et même d'étangs," full of gardens and ponds.—Königsberg, including its suburbs, is two [German] miles in circumference, but in that space are comprehended many fields and gardens, and a pond or lake (*ein see.*) *Convers. Lex. art. Königsberg.*—P.

ⁿ Not the fortifications only, but all the buildings in that quarter. The piles are made of the alder tree. (Busching. M.B.)—P.

rendered illustrious by Kant, the most subtle and perhaps the most obscure of modern philosophers. Important documents relative to the ancient history of Prussia, have lately been discovered in the libraries and archives of the town.

The fortress of Pillau, the military key of eastern Prussia, is situated on a peninsula to the west of the capital. The interior coasts of the peninsula, and the adjacent country on the main land, are denominated the *paradise of Prussia*. Verdant hills covered with fruit trees and gardens, thick woods and villages, a sea that abounds in fish, and to which many fishing boats repair, the large and tranquil basin of the Frisch Haf, covered with swans and different water fowl, form part of a view, which may be seen by sailing on the lake, by ascending the observatory of Pillau, or from the neighbourhood of the *Pfundbude*, or old custom house.

Welaun, at the confluence of the Alle, *Insterburg*, a place of nearly six thousand inhabitants,^a and *Gumbinnen*, a new town peopled by seven thousand individuals,^b and the capital of a government, which comprehends Lithuanian Prussia, are situated eastward of Königsberg on the upper part of the Pregel.^c

Tilsit is situated on the Memel or Niemen; it contains eleven thousand inhabitants, and is the second town in eastern Prussia; it is not less celebrated from its treaty, than from an interview which took place there between the Emperors Alexander and Napoleon.^d The flourishing town of Memel, a place of considerable commerce, particularly in hemp and timber, is built on the outlet of the Curisch Haf, in the sterile extremity of Prussia.

The country between Tilsit and the Curisch Haf, is low and marshy; traversed by two branches of the Memel, the Russe and the Gilge, it is exposed to their inundations. The land does not yield much grain, and it is ill provided with wood, but the pasturage is rich and abundant, and the inhabitants might supply the kingdom with the produce of their dairies.

The fruitful and well wooded plains of central Prussia extend to the south of Königsberg. The ancient castles and modern farms^e in that part of Prussia are more interesting to travellers than the small towns, although the latter are peopled by industrious and well educated burgesses. *Braunsberg* forms a solitary exception; it is built near the mouth of the Passarge, and its citizens carry on a trade in linen, grain and masts; it is supposed to contain upwards of six thousand inhabitants. *Rastenburg*, *Bartenstein*, *Heilsberg*, and other places, are less populous. Every town in the same part of the country has its particular beverage; *Preussisch-Holland* is noted for a sort of beer, called *fullwurst*, and *Goldap* for its hydromel. *Gerdaun* is built at a short distance from a lake, remarkable for a floating island, which by its motions indicates the state of the atmosphere, and the inhabitants call it, for that reason, the almanack of Gerdaun. The small town of *Frauenburg* is the metropolis of the diocese of Ermeland, and among the canons of its cathedral, was the celebrated Nicholas Copernicus, the author of the most probable hypothesis concerning the planetary system; that great astronomer died at Frauenburg on the 24th of May, 1543.

^a "5600."

^b "More than 6000."

^c Insterburg and Gumbinnen are situated on branches of the Pregel.—P.

^d The treaty and interview were events of the same date.—P.

^e *Vorwerk*.

^f A. D. 997.—Busching.

The most of the towns in Western Prussia are situated on the banks of the Vistula, the only river that waters the country. Dantzie, the Polish *Gdansk*, from which its modern Latin name *Gedanum* is derived, was in all probability a flourishing city, and not a mere burgh or village, in the tenth century.^f It afterwards however declined in importance, and it was only about 1160 or 1170 that it again rose to distinction. The invasion and conquest made by Waldemar the First of Denmark, appears to have occasioned the settlement of a Danish colony in that favourable position, and it is thus easy to explain its comparatively modern name, *Dantzie*, by *Dansk-vik*, Danish port or gulf. In the oldest diplomatic writings the town is simply called *Dansk* or *Gdansk*. It was enlarged and fortified by the Teutonic knights, but the inhabitants did not submit tamely to the tyranny of their new masters; they revolted in 1454, and put themselves under the protection and sovereignty of the Polish kings, from whom they received many valuable privileges, of which perhaps the most important was the exclusive navigation of the Vistula, for it put into the hands of the citizens all the maritime commerce of Poland. It continued in possession of several privileges and immunities, until the year 1795, so that it might then have been considered rather a free town or a republic than a dependence of a foreign crown. Its population, which amounted in former times to eighty thousand souls, was reduced before the year 1772 to sixty thousand. The restraints which have since been imposed by Prussia on the Dantzie trade, compelled many individuals to emigrate; and in 1803, the number of inhabitants, including those in the different suburbs,^g was not more than forty-seven thousand.

Dantzie has all the disadvantages of an old town; the porches jut into the narrow streets, and disfigure the houses, which are strongly but clumsily built. Of its twenty-one parish churches, thirteen are appropriated by Lutherans, four by reformed or Calvinists, and four by Catholics. It has been remarked that the Calvinists are the most wealthy inhabitants. An astronomical observatory, a large museum of natural history, several learned societies, and a seminary with a library of thirty thousand volumes, prove that the people are not exclusively devoted to mercantile pursuits. The town is surrounded by fortifications, and has supported several memorable sieges. The harbour is formed by the mouth of the Vistula, and protected by the forts of *Munde* or *Weichselmunde*. The roadstead, or what is properly called the Gulf of Dantzie, is sheltered from the north wind by the tongue of land on which stands the small town of Hela. A *werder* or low and fertile island between the Vistula and the Motlau was not the least valuable part of the city lands in the time of its freedom. It possessed during the same period a very great trade in grain, wood, hemp and manufactured goods; it was the mart of the Poles, who exchanged there the raw produce of their vast territory for the different articles of European luxury. Although its trade had much diminished under the Prussian government, it is certain that in the year 1803, eighteen or nineteen hundred vessels entered its harbour, and as many sailed from it. But the depredations of the French and the Russians, from which this unfortunate city suffered perhaps more than any other, drained at last the sources of

^g "Six suburbs."—Dantzie is divided into three towns: the Fore Town or Vorstadt; the Old Town or Altstadt; and the Rechtstadt. There were seven suburbs, the greater part of which were burnt during the siege of 1806: namely, Old and New Scotland, (a Scotch colony,) Stolzenberg, Hagenberg, Bischofsberg, Schidlitz and Langetuhr. Ed. Encyc.—P.

its prosperity; during the short period between 1807 and 1815, it lost the sum of seven millions,^a and the only branches of industry, which remained, were its sugar works and distilleries. Of late years, the calamities of war have been removed, its population, which has been gradually increasing, amounts now to fifty-three or fifty-four thousand, and it is still the first maritime city in Prussia.

Marienburg, or the Polish Malborg, the ancient capital of the Teutonic knights, is situated on the banks of the Nogat, a branch of the Vistula. It is at present a town of five thousand inhabitants, and it carries on a trade in cloth and linen. The *werders* or low islands in the neighbourhood of Marienburg, Dantzic and Elbing are very fruitful and well peopled. Agriculture and the breeding of cattle are carried to a great degree of perfection; the peasantry are free, and most of them belong to the sect of the Menonites. The land in those islands is very valuable; the price given for a *morgen*, a measure nearly equivalent to an acre, varies from £40 to £60.^b It is a bad crop that returns only twelve for one; the average harvests return twenty and the good thirty fold. Part of the fruit that grows on the same land, is exported to Russia.^c

The flourishing and commercial town of Elbing, is built in a low and fruitful district near the *werders*; its name is derived from the small river Elblach,^d which issues from the lake of Drausen. King Alfred in his geography of Europe, calls the river the *Ilfing*, and the lake the *Truso*. The *Ilfing* then discharged itself directly into the Frisch Haf, of which the dimensions are exactly described by the king under the name of *Estmere*, and it may therefore be inferred that the Nogat, a branch of the Vistula, had not been formed at that period. The harbour of Elbing is formed by the canal of Kraffuhl, but large ships cannot advance beyond Pillau. The number of vessels that have arrived in the port in the last few years is estimated at fifteen hundred, but in that number are included six or eight hundred Polish boats, and two or three hundred lighters. The trade consists in corn and hemp; the exportations^e in wine, iron and colonial produce. The houses are solid, but ill arranged, and the total population amounts to twenty thousand souls. A colony of fishermen from the same place are settled at Tolkemit on the Frisch Haf; they depend chiefly for subsistence on the produce of the sturgeon fisheries, the profits of which, though sometimes great, are very variable.

The other towns above Elbing and on the banks of the Vistula, are *Marienwerder* (Pol. *Kwidzin*), situated in a fruitful district, and containing a population of six thousand souls, *Graudentz*, a town of seven or eight thousand inhabitants, with an important fortress that now commands the Vistula, and *Culm* or *Chelmo* with a small catholic seminary. The trade of these places consists mostly in linen and woollen goods. Thorn, one of the most ancient towns in Prussia, was founded in 1231 by the first grand master of the Teutonic order; it became an independent town or republic in

1454, under the protection of Poland; its fortifications were afterwards razed by Charles the Twelfth. The people suffered much from the violent persecutions excited by the Catholics, particularly the Jesuits, against the Lutherans. The inhabitants, who amount to nearly nine thousand; are almost all Protestants, but the Catholics are still in possession of their empty churches. A Lutheran seminary, founded in 1594, is well known from the number of learned men that have attended it. Nicholas Copernicus was born at Thorn on the 10th of January, 1472. The town is remarkable for its public buildings; one of the bridges on the Vistula is upwards of a mile in length.^f

The different classes of inhabitants in Prussia may be divided into nobles, landed proprietors, burgesses with more or less extensive privileges, and peasants who though free and capable of possessing land by a law passed on the 11th September, 1811, are still the vassals of the nobles; from this vassalage the peasants on the *werders*, and the inhabitants of the new colonies, are exempt.^g The inhabitants of the *werders* are the wealthiest of the peasantry; their houses are not destitute of elegance, and their children are well educated; but the progress of improvement has been retarded by the devastations committed in the course of the last war. The other extremity of the country is inhabited by the Lithuanian peasants, or the descendants of the ancient Pruzzi; they retain their native dialect, and are still ignorant and slothful. The coarse cloth with which they are clad, is manufactured by themselves, and all of them wear around their waists a sort of scarf, called a *margin*. The *Koures*^h wear their *margins* across their shoulders. The boots and caps of the women are nowise different from those of the men. A tin or silver girdle loaded with a great many keys is the ornament of every housewife.ⁱ These tribes are not unworthy of observation, and it is likely that some curious documents concerning them are concealed in the German libraries. It may be remarked, in the absence of all authentic information on the subject, that the *margin* appears to be the same as the plaid of the Scottish highlanders, a circumstance which renders perhaps the singular assertion of Tacitus less improbable than it might otherwise appear, viz. that the *Æsty* spoke the same language as the ancient Britons.^k

Some of the Prussian nobles are the descendants of the Teutonic knights, who renounced their monastic vows. Other noble families came at a later period from the north of Germany. They are distinguished by an air of command, and a dignity of manners, which have been gradually softened down by the usages of civilized society. They are characterized, like the Livonian nobles, by an aristocratic pride tempered by feelings of benevolence. The Prussian aristocracy is not a wealthy order; their estates are of little value; it is supposed that the greatest annual income derived from the land of any one noble, does not exceed £2500.^l

The burgesses differ according to their origin and the

^a "150 millions francs."

^b "The *morgen* of land sells for 7500 to 30,000 francs." (?) In the Tables of Mathematical Geography, (Tab. IX.) the great *morgen* of Prussia is to the English acre as 7 to 5, and the small *morgen*, as 3 to 5, nearly.—P.

^c "Apples and plums are exported to Russia."

^d *Elbl*, little *Elbe* or *Elv*, and *ach*, water.

^e Qu. importations.—P.

^f "Thorn is noted for its gingerbread, its turnips, its excellent soap, and a bridge, half a league long, over the Vistula."

^g "The inhabitants of Prussia are at present composed of the higher and lower nobility (*seigneurs et simples nobles*), the proprietors of free estates under the law of *Culm*, burgesses with more or less extensive privileges, and peasants who are now personally free and proprietors of the soil, by the law of Sept. 11, 1811, but are bound by different rents and services to the former feudal proprietors, with the exception of the peasants in the *werders*, and the inhabitants of the new colonies."

^h Fishermen on the shores of the Curisch Haf.

ⁱ Bernouilli, Sammlung von Reisebeschreibungen, VII. p. 382.

^k "Lingua Britannicæ proprior." Tac. de Mor. Germ.—P.

^l "There is not an estate of the value of a million of francs."

size of the towns; thus the descendants of the German colonists are more enlightened than those sprung from the Poles and the Wends.^a In Memel, Königsberg, Elbing, Dantzic and Thorn, traces of the ancient freedom enjoyed by the Hanseatic towns may still be observed. If that be true with respect to all these places, it is more applicable to Dantzic than to any other. It may be perhaps worth while to quote the account which an ingenious author has given of it at a time when it still retained its independence.^b

Dantzic is more agreeable to a stranger than the other trading towns. As most of the inhabitants are merchants or manufacturers, most of them are active and industrious. At the same time, their commercial relations with Berlin, England and other foreign countries, have contributed greatly to improve the people. Many of those, who from prejudice are supposed to be only desirous of gain, are not insensible to the charms of literature and the fine arts. There is scarcely a father in the town, who does not give his children an education conformable to his circumstances and station in society. Every young man can read, write, and cast accounts; many of them are sent to foreign universities, and they are well instructed at home in ancient and modern languages.^c

The good and bad citizens may be easily distinguished; they never mix with each other. As the greater number are united by a common interest, any thing like fraud or dishonesty excites general indignation. The germs of discord by which other capitals are agitated, are not known. No individual can encroach on the rights of another; no such homage is paid to talent, wealth, or even to services conferred on the community. Although that republican spirit may tend to repress the powers of a few great minds, it also defends the state from a greater evil, the designs of artful and wicked men.

No mendicants are permitted to remain in the city, because every healthy individual may obtain employment in the numerous manufactories, every infirm person can find an asylum in the public hospitals, and every vagrant ought to be confined in a house of correction, where he may have some chance of being reformed.^d Public women are banished beyond the walls, and the marriage vow cannot be broken with impunity, as it often is in other capitals. A foundling hospital is not the least useful institution in the town; mothers never destroy the fruits of their illicit love, and infants are never exposed in the streets.

Nothing increases more the prosperity of Dantzic, than the freedom of commerce and industry. Every man may follow without constraint the profession which is best suited to him, and thus add both to the public weal and his private fortune. As to its internal administration, the government of Dantzic was one of the most equitable that can well be imagined. Any magistrate, more especially if he was a merchant, whose probity was suspected, or who had obtained suffrages by intrigue or promises made to the electors, was deprived of his situation; the citizens vied with each other in turning him out of office.^e It is true that the

merchants lived at great expense; all of them had at least a country house and a garden. Their houses were finely furnished, and one large apartment was set apart for a library. The men were defended against the cold by the most costly furs in Europe; addicted to hospitality, or fond of ostentation, they gave sumptuous entertainments, and kept a number of horses and a great retinue of servants. The Russians and French obliged them to dispense with such superfluities; which, however, were not disproportionate to their income before the arrival of these strangers. It has been remarked that the luxury of the opulent citizens, was not of that frivolous nature, which is common in other large towns. It is certain that they loved their country, spared nothing in embellishing it, and were charitable to their poorer brethren. The fair sex acted an important part, and their influence was attended with good consequences; society was by this means improved and polished, and drunkenness became a vice wholly unknown among the better sort of burgesses. Such was Dantzic in the days of its independence, and the happy effects of that independence have not been effaced under the Prussian government.

The grand dutchy of Posen forms physically a part of Poland; the same plains, the same kind of sand intermixed with clay and black loam, the same fertility in corn, and the same sort of forests, may be observed in the two countries. A traveller whose work is little known, informs us that the rye of Posen is finer than any in Brandenburg, that the fields are planted with orchards of plum, apple, and pear-trees, and that the morel and asparagus grow spontaneously and in abundance. Mushrooms too are very common in almost every part of the country. The peasants rear a great many bees; the poultry is as large and not inferior to any in France, and the fields abound with partridges and pheasants.^f The land tortoise is exported to Prague, and the beaver builds its dikes and dwelling in the heart of the forests.^g The author of the latest statistical account informs us, that many large marshes, covered with reeds and brush-wood, are still undrained in the province, particularly along the winding course of the Odra.^h The Warthaⁱ is the principal river in Posen, and a canal by which the country has been much improved, forms a communication between the Vistula and the Oder by means of the Netze.

The peasantry are slothful, ignorant and superstitious; drunkenness is a common vice among them; all the legislative enactments, all the efforts of the Prussian administration to improve their moral and intellectual condition, have hitherto been accompanied with slow and uncertain success. According to the traveller, whom we have already quoted, the condition of the peasants in the time of the republic, was little better than that of negroes; the petty nobles carried off their daughters, and if the parents ventured to complain, they might perhaps receive many stripes; in short, there was neither law nor justice for a peasant. The same class, says a writer who resided in the country,^k lived better than the German labourers. Abundance of food, coarse but warm clothing, dirty but comfortable cot-

^a "The burgesses differ according to the size of the towns, and the purity of their German origin, or the degree of their mixture with the Poles and Wends."

^b *Hermes, Voyage de Sophie.*

^c "The young ladies devote themselves to the languages, music, dancing and drawing; the young men travel in foreign countries."

^d "— there were means of amendment for every vagabond, in a house of correction, excellently organized."

^e "If a bad man was elected to a magistracy, he was forced to become honest; otherwise his elevation was of no long duration, particularly if he was a merchant."

^f In the original, it is simply stated that the country abounds with bees, game and poultry.—P.

^g *Journey to Witkowo, in Bernouilli's Collection, IV. p. 229.*

^h *Holsche's Statistics of Southern Prussia, cited by Hassel.*

ⁱ *Warta.*

^k The traveller already quoted.

tages, a feather bed, and the privilege of singing, dancing and getting drunk, were their consolations in a state of slavery. It is difficult to improve a race degraded by ages of servile habits, particularly if superstition occupies the place of morality.

The Catholic clergy are now improved, but in 1781 they burned witches, prohibited the reformed religion, had their concubines, and sold indulgences.* They are still opposed to the enlightened system of the Prussian government, for it tends to diminish their revenue and power. Although the nobles have a reasonable share in the administration of affairs, they still hate and despise the Germans. Their conduct may be compared to that of an indocile and obstinate pupil towards his schoolmaster. Licentiousness has its charms for the great, and anarchy its pleasures for the people. Notwithstanding these obstacles, the country is gradually becoming a German province; out of a population of nearly nine hundred thousand inhabitants, a hundred and sixty thousand are Germans; and what is not a little remarkable, not less than twenty-four thousand two hundred are Lutherans. This change has been effected by the successive migrations of industrious manufacturers from Silesia and of agricultural colonies from Swabia, and it is but justice to confess, that these migrations have been favoured by the most enlightened members of the Polish nobility. The Jews are in this country the class of men by whom improvement has been most retarded; the sole possessors of capital, every branch of industry is in their hands; they lend money at exorbitant interest, purchase at a low rate the different manufactured articles, and sell them in different countries as the manufactures of Silesia. The German millers form almost a distinct caste; the happy inhabitants of a romantic country, possessing numerous flocks, abundantly provided with fish, poultry and game, they make up the class between the peasantry and the nobles, and neither associate with the one nor the other, all of them intermarrying among themselves. Strangers to poverty, they enjoyed the blessings of a retired life, but their solitudes were invaded, and their houses pillaged, during the French wars.

Poznan or Posen, the ancient capital of Great Poland, is situated between two hills, on the banks of the Wartha and the Prosna; it is encompassed by a double wall and a deep ditch. It has two suburbs on the opposite side of the Wartha in the midst of a large marsh, and they, as well as the town, are exposed to frequent inundations by the overflowing of the river. The cathedral and the town house are the finest buildings; the others are an ancient castle, imperfectly fortified and situated on a hill between the two rivers; a college, which was endowed by the bishop Adam Konarski, and which belonged formerly to the Jesuits; lastly, a seminary or gymnasium, founded by the bishop John Lubranski, and called the *Athenæum Lubrancianum*. The population, besides the garrison, amounts to twenty-three thousand inhabitants, and in that number are included four thousand Jews. The town is enlivened by three annual fairs, and its trade consists principally in cloth and leather.

Rogozko, a place of four thousand inhabitants, lies to the north of Posen; on the west of it and on the banks of the Wartha, are *Obrziko*, *Birnbaum*, and *Schwerin*, all of which

are peopled by Jews and manufacturers. The town of *Meseritz*, (according to its Polish name, *Miedzyrzycz*,) belongs to the Marquis of Lucchesini, and contains four thousand inhabitants; the greater number of them are employed in manufacturing cloth. The roads from Moscow and Warsaw, as well as those from Stettin, Berlin, Leipsic, and Breslau, cross each other at Meseritz.

Several manufacturing towns are situated on the Silesian frontier; but *Bomst*, or *Babimost* as it is called by the Poles, is partly peopled by vine-dressers. The culture of the grape in a country under the fifty-second degree of north latitude is certainly a phenomenon, although the produce is never abundant, and although it may be compared to vinegar rather than wine.^b *Kargowa*, or the German *Unruhstadt*, may be mentioned on account of its cloth manufactories. *Fraustadt* contains six or seven thousand inhabitants, exclusively of its garrison; it possesses a considerable trade in corn, cattle, wool and cloth. The town was formerly a dependence of the principality of Glogau in Silesia. It was taken by Casimir in 1343, who agreed to protect its privileges, among others that of coining money, which it had received from its princes. *Lissa* or *Leszno* is still more populous; it contains nine thousand inhabitants; of that number four thousand are Jews, and a large synagogue is erected for them in the town. The trade of the inhabitants consists chiefly in linen and cloth, and it is said that there are not fewer than two hundred manufactories.^c *Lissa* was at one time only a village, but Count Raphael Leszinski invited there a great many Protestants, who had migrated from Silesia, Bohemia, Moravia and Austria, to whom he granted the free exercise of their religion. The same town gave origin to the counts Leszinski, the family from which Stanislaus, king of Poland, and afterwards sovereign of Lorraine, was descended. *Lissa* belongs at present to the count Sulkowski. If we still continue our route along the Silesian frontier, we observe the seignorial town of *Rawitz*, peopled by 8100 individuals, more than seven thousand of whom are Lutherans. According to a statistical account, there were a few years ago, three hundred and twenty-seven master manufacturers, and the quantity of cloth made annually, was not less than fourteen thousand pieces. *Rawitz* belongs to the Sapiéhas, one of the most powerful and ancient families in Lithuania. *Boianowa* is also a manufacturing town, and it exports annually about seven or eight thousand pieces of cloth.^d *Krostochin*^e and *Zedumy* may each of them contain about four thousand inhabitants, principally manufacturers, Jews and Lutherans.

Such are the principal manufacturing towns in the province, and all of them are situated on the German frontier. Their trade, though still inferior to that of Silesia, is rapidly increasing, and many of the Polish peasants, now no longer in a state of servitude, are employed in the manufactories.

The towns on the Polish side are less populous. *German coffee* or *German money* is a common phrase in Poland, to express that which is of little value. The Germans may with equal justice retaliate, for a *Polish city* may be applied to signify an ill built and solitary town. At no great distance from the town of *Syrem*, there is a sort of potter's clay, which is sometimes hardened by the heat of the sun

^a Bernouilli, l. c.

^b "The annual produce amounts to only 140 pipes, and is chiefly used in the manufacture of vinegar."

^c "250 cloth manufactories."

^d "*Boianowa* has 250 master clothiers, who manufacture annually seven or eight thousand pieces."

^e Krotoschin.

into small concave laminæ or plates, as if apparently fashioned by the hand of man, a wonder not likely at present to excite much surprise, although it seemed quite unaccountable to many old Polish writers.

Gnesna or *Gnieszno*, a very ancient Polish city, was the metropolis of a diocese in the year 1000.^a Boleslaus the First purchased the body of Saint Adalbert from the Prussians, who had put him to death. The remains of Adalbert were deposited in the principal church by the same pious king, and a silver tomb was placed over his grave by Sigismund the Third. It is however uncertain if the body of Adalbert be still in Poland, or if the Bohemians carried it off with them to Prague in the year 1038. *Gnesna* is peopled by four thousand four hundred souls; it carries on some trade in cloth, and a fair, which lasts eight weeks, is held every year. Many horses and oxen are sold during

the fair; on one side of a large field, a long range of horses is exhibited, on the other, a corresponding one of oxen. The Polish nobles resort on these occasions to the town; they used formerly to amuse themselves by fighting with each other; being now more refined, they stake their land, money, horses and oxen at the gaming table. The poorer strangers take up their abode in a wood near the road side. Every one chooses his particular spot; at night a fire is kindled, and the supper dressed; in the meantime, songs are heard, and the young dance to the accompaniment of flutes and hautbois. A thousand fires, reflecting their varied lights on the trees and branches, remind the spectator of fairy land, but the fires gradually disappear, and after a short interval of darkness, the music of the birds hails the first rays of the rising sun.^b

^a "*Gnesna*, in Polish *Gnieszno*, is the most ancient city in Poland, and the seat of an archbishoprick, founded in the year 1000."

^b Bernouilli.

BOOK CXVI.

EUROPE.

*Europe continued—Germany—First Section—Physical
Description of Germany.*

THE country, which we are about to describe, has often been styled the *stumbling block of geographers*, a distinction which it owes to its innumerable subdivisions and arbitrary circumscriptions, long contrary, and still in many respects ill adapted to any geographical or political system. It shall be our endeavour to put something like order into this chaos, to classify the different details under their proper heads, and, by so doing, to give a plain and clear account of that interesting and important portion of Europe. As to the physical geography of the country, it may perhaps be as well to consider Germany according to its common or vulgar acceptance, which is less at variance than any other, with its ethnographical limits. It must not be forgotten that the Swiss Alps are the sources of many German rivers, that the Low Countries may be considered an alluvial deposit of these rivers, and the Danish peninsula, a continuation of the Germanic plains. Although it may be necessary to recur frequently to these facts, it is equally necessary not to lose sight of more common notions, sanctioned by political treaties and the opinions of every people in Europe. Having thus considered Germany, determined its mountainous chains, the basins of its rivers, and the difference of its climate and productions, in short the general and permanent characters of its physical geography, in a manner wholly independent of political divisions, we shall give an account of the different countries that make up its vast extent. It may be as well for the sake of method, to class the countries, that are not far removed from each other, or at least do not differ widely in their physical characters and productions, as it may be thus more convenient to enter into the statistical details, and to compare or contrast them with one another.^a In this way, may be successively described the eastern German states, subject to the king of Prussia, and situated on the Oder and the Elbe, the secondary states watered by the Lower Elbe and the Weser, and the western Prussian states from the Weser to the country beyond the Rhine. It may then be worth while to take a general view of the whole Prussian monarchy, a state incomplete in its limits, and still ambitious of territory. The remaining countries to be described, are the secondary states of Saxony, Hesse and others, which extend from the banks of the Rhine to those of the Elbe, in the centre of Germany, and, secondly, the still better determined region of Bavaria, Wirtemberg, and the grand dutchy of

^a "We shall simplify the subject by arranging the different states into geographical groups or masses, and by introducing in their proper place, the statistics of each government."

^b "When we have completed these chorographical details, we shall consider the whole of Germany under a moral and civil point of view, and shall

Baden. It then only remains for us to give an account of the different Austrian states in Germany, and to examine in a political and statistical point of view, the heterogeneous mass, which forms the Austrian empire. All the chorographical details may be included under one or other of these heads, but it would be incorrect to say nothing of the civil condition, the moral and intellectual resources of a nation, that is only prevented by want of union, from being predominant in Europe.^b By means of these divisions, which are easily understood, may be comprised within a moderate space whatever is interesting or worth knowing in the volumes of those writers, that have attempted to imitate the learned Busching. The necessity of repeating twenty or thirty times the same facts in the same language, may thus be obviated. It is not that the German method is to be wholly condemned; it is enough that it is ill adapted for the general reader, and not always followed by the best writers in Germany.

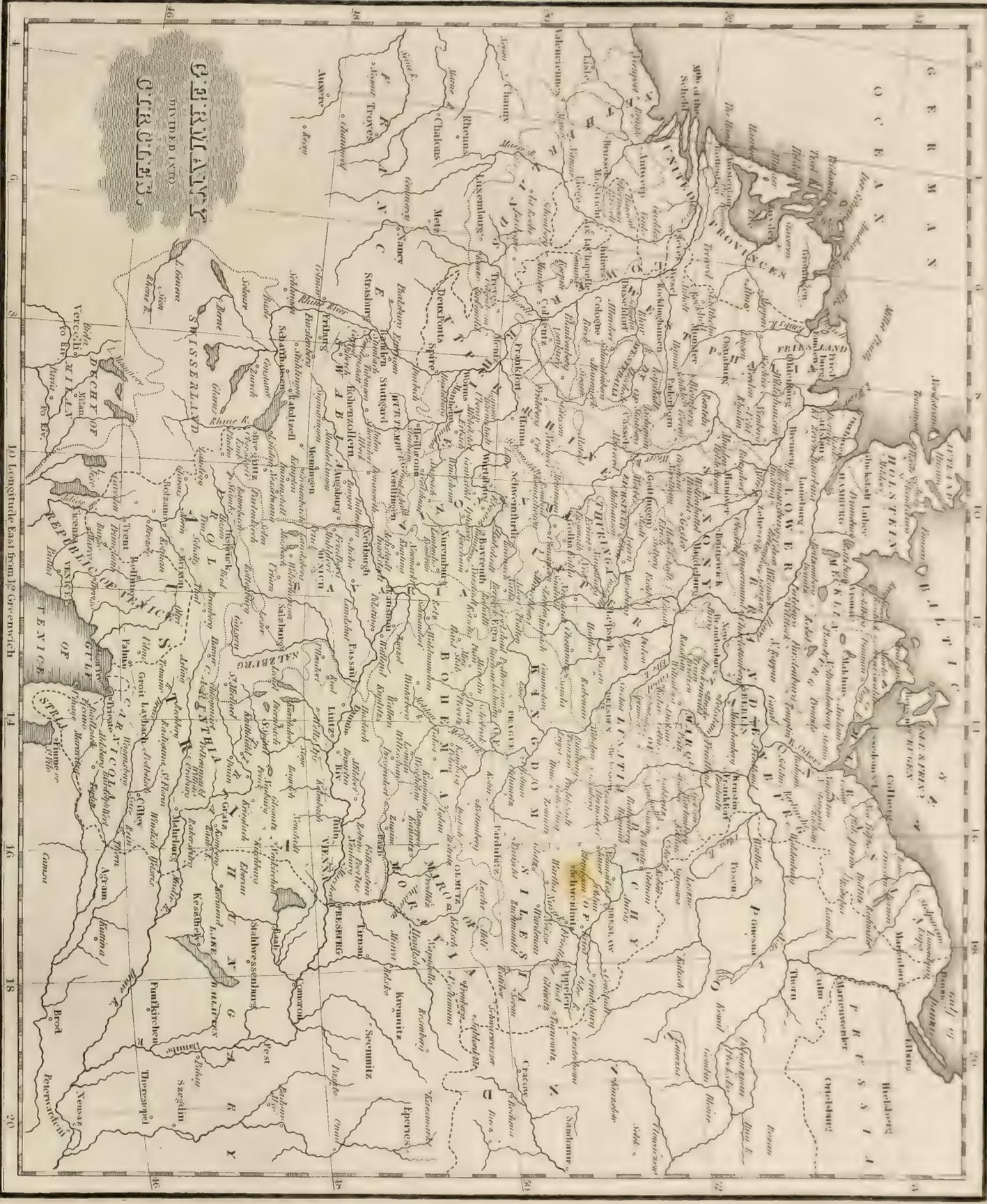
All the German mountains depend on the Alpine or the Hercynio-Carpathian range. We shall describe in a different part of this work, the chains that extend from the central nucleus of the Helvetian Alps across Tyrol, Carniola, Carinthia and Stiria, or the *Rhetian, Carnian* and *Noric* Alps, together with their branches in Swabia, Upper Bavaria and the country of Salzburg. Their position, the direction of the different chains, and the height of the principal summits, have been already mentioned in our table of European mountains. The south-east part of Germany is thus rendered one of the most mountainous countries in Europe, and the extensive plains at the base of these chains, are greatly elevated above the level of the sea. The great valley of the Danube, which forms the boundary of the Alpine range, is in several places so much confined that the Alps appear to be connected with the Hercynio-Carpathian mountains in many parts of Austria. Although separated by the high plains of Bavaria, the mountains of the Black Forest near the sources of the Danube, connect the two ranges, and this junction is also marked by the falls of the Rhine.

The Hercynio-Carpathian mountains are bounded on the west by the course of the Rhine, by the valley of the Danube on the south, and the Dniester on the east. From their northern declivities descend all the rivers, which water the plains of Poland, Prussia and northern Germany. This range of mountains^c occupies the greater part of Wetteravia,^d Hesse, Thuringia, Bohemia, Moravia, Upper Silesia, Upper Hungary and Transylvania.

endeavour to form a just estimate of a nation which might control the whole of Europe, if it were united."

^c The author considers the entire range as a *plateau* or table-land. It in fact includes all the high country within the above limits, and embraces several distinct ranges of mountains. It is rather a system than a range of mountains.—P.

^d The Wetterau.



GERMANY
 DIVIDED INTO
PROVINCES

10 Longitude East from 12° Greenwich

London Published by Samuel Walker.

1868



That great terrace commands on the north, the immense plains, which extending from the British Channel to the Sound, and from the shores of the Baltic to the Euxine, separate wholly the Alps and the other southern chains from the mountains in the north of Europe. The Hercynian and Carpathian mountains rise above the Sarmatian and Teutonic plains, but their summits cannot be compared with the majestic heights of the Alps.^a Considered in this point of view, they appear to be the appendage of a greater range, and to form the northern extremity^b of the Alps, and the counterpart of the Appennines. But a great difference between the Hercynio-Carpathian chain and the Appennines, consists in the latter being very distinctly separated from the Alps by the deep valley of the Po, and the Adriatic, while the valley of the Danube is less excavated, and confined in its upper part, as has been already remarked, by the branches of the eastern Alps, and the mountains of Bohemia. The mountains connected with the Alps on the west, are united with the Hercynian chain, not only by the Black Forest, but by the continuation of the Vosges in the neighbourhood of Bingen. It is not less certain that the calcareous heights of the Bannat are connected with the mountains of Servia, which join those of Dalmatia, a dependence of the Alps. There is however a more essential difference between the Appennines and the Hercynio-Carpathian range; the first are a continuous and regular chain, and the other, if correctly observed, seems to form a series of lofty plains, on which several small chains rise, and although their summits are evidently separated, all of them are supported on a common base.

This table-land crowned with mountains, inclines to the north and the north-east. That fact cannot be disputed, for it is proved by the course of the Vistula, the Oder and the Elbe; but local irregularities are occasioned by the different chains, which rest on this elevated base. Thus the *Erz-Gebirge* in Saxony terminate in rapid declivities towards Bohemia, and appear to interrupt the general inclination. But, independently of some detached chains which form an exception to the general rule,^c it may be established from the course of the rivers that there is a continued though gentle declivity towards the north.

To have a correct idea of the mountainous and woody regions formed by the Hercynian range, one must imagine himself placed on the Carpathians in the north-west extremity of Hungary. A long ridge, the *Gesenker-Gebirge* or low mountains, of which the general elevation may be about four thousand feet, is disjoined from the base of the Carpathians, separates the basin of the Oder and Silesia from the basin of the Morawa or Moravia, and extends to the eastern extremity of Bohemia, where it is divided, and forms an enclosure of mountains round that country.

The *Riesen-Gebirge* or Giants' Mountains on the north east of the sources of the Elbe, extend from the south-east to the north-west, and form a series of chains connected by a common base. No river traverses any part of this range, which fronts the Silesian and Lusatian plains, and its highest summits are about five thousand feet above the level of

the sea. The *Erz-Gebirge* or metalliferous mountains are nowhere higher than four thousand feet; the Elbe forms for itself a narrow passage through the chain, which extends westward to the sources of the Eysa, and rises above the plains of Saxony, and the hills of Thuringia. The same heights are connected at their western extremity with the *Fichtel-Gebirge* or Pine mountains, from which the *Böhmer-Wald* or Bohemian forest turns south-eastwards, and fronts Bavaria and the banks of the Danube. The elevation of the *Böhmer-Wald* is in some places higher than four thousand feet. Near the sources of the Moldau, the mountains sink to the elevation of two thousand feet, and extend in a north-east direction, to join the *Riesen-Gebirge*. The *Mittel-Gebirge* or central mountains are situated in the interior of Bohemia, or the basin of the Upper Elbe, they follow the course of the Eysa, and their basaltic summits are from two thousand to two thousand five hundred feet in height.

Beyond the confines of Bohemia, there are only small chains, connected by hills. Thus, the *Thuringer-Wald*, or forest of Thuringia, a continuation of the *Fichtel-Gebirge*, partly separates Saxony and Thuringia from Franconia, and the summits are not higher than two thousand seven hundred feet. It is connected by heights of fifteen hundred or two thousand feet, with the group of the *Rhane* mountains, situated between Bavarian Franconia and the electorate of Hesse, the elevation of which was formerly estimated at four thousand feet, but is now ascertained not to be greater than two thousand eight hundred. These mountains are connected by volcanic hills with the *Spessart* in the neighbourhood of Aschaffenburg, and with the ancient *Taunus*, now the *Höhe*, to the north of Frankfort, of which the elevation is still lower. All these little chains are separated from each other by vallies, and they appear like so many groups, that extend in different directions from a number of central summits.^d The range forms itself into a sort of table-land or elevated plain at the sources of the *Weser*;^e and Mount Meisner rises above it to the height of two thousand feet,^f an elevation that corresponds with that of the *Westerwald*, a rugged group near the banks of the *Lahn*. The heights or rocky hills, which, under the general name of the *Westphalian mountains*, cover the dutchy of *Westphalia*, together with part of the country of *Munster* and *Paderborn*, and terminate near *Minden* at the pass of the *Porta Westphalica*, are not higher than a thousand or twelve hundred feet; no point in any part of them appears to be of a greater elevation.

A single promontory, of which the highest summit is about three thousand five hundred feet, crowns the plains of lower Germany. It is the *Brocken* or *Blocksberg*,^g the middle point of the *Hartz*, a group of mountains, which become lower on every side round their common centre, and are only connected on the south with the *Thuringer-Wald* by the broken hills of *Eichsfeld*.

Such is the general position of the Hercynian mountains, but it is necessary to make a few observations on the points of connexion between them and the extremities^h of the

^a "The Hercynian and Carpathian mountains are as much inferior in elevation to the Alps, as they are superior to the Sarmatian and Teutonic plains."

^b "Avant-terrace"—bulwark.—P.

^c "The elevations which seem to contradict the general rule, should be considered only as dikes intersecting the declivity."

^d "They rather form groups, each of them surrounding a central summit or mass."

^e "Along the *Werra*, one of the sources of the *Weser*, the chain consists of a series of table-lands, above which Mount Meisner rises, &c."

^f 2184 feet.—Table of European Mountains.—M.B.

^g The translation varies somewhat from the original, and is at least equivocal in its meaning. The promontory, (highlands projecting into the plains of Lower Germany,) is the entire group of the *Hartz*, and the *Brocken* or *Blocksberg* is the highest central summit.—P.

^h "Promontories."

western Alps. A high country, intersected by ravines and deep vallies, from which the Steigerwald extends to the west, joins the Fichtelberg, from whence the Maine takes its source, with the *Alb* or *Rauhe Alb*, a small chain that rises to the height of two thousand five hundred feet, and winding along the basin of the Upper Danube, unites with the more elevated chain of the *Schwarzwald* or Black Forest. It is from the mountains of the Black Forest that the Danube rises; their highest elevation is reckoned to be about four thousand six hundred feet; they are detached from the Alps of Zurich, and divide the valley of the Rhine from that of the Neckar. The lower heights of the Black Forest are separated by the Neckar from the volcanic hills of the Odenwald, and these last are separated by the Maine from the Spessart. The chain of the Vosges, detached from Jura, is continued in a northern direction along the German territory, and receives the new name of Donnersberg.^a But a more arid ridge, the *Hundsrück* or the *Dog's Back*, is disjoined from it on the north-west, rises above the basin of the Moselle, confines the valley of the Rhine between Bingen and Coblenz, and approaches the heights of the Westerwald and Taunus. The ridge of the Ardennes between the Moselle and the Meuse, is strictly a part of Germany, for the grand duchy of Luxemburg forms a part of the German Confederation, but from the effect of a general, though erroneous opinion, it is usually described along with the kingdom of the Netherlands.^b The north and north-east extremities, which are undoubtedly in Germany, form the marshy ridge of *Hohe-Veen* and the volcanic hills of *Eyffel*.

Extensive plains are situated round these mountainous regions. The largest of them all, is the one which without any other interruption than the course of the rivers, comprehends Lower Silesia, the ancient^c Lusatia, Brandenburg, which in some parts is wholly covered with sand, Pomerania and Mecklenburg, in which some hills are interspersed, Hanover, where it forms an almost imperceptible elevation, overgrown with heath, which extends across Holstein, and joins the central wastes of Jutland, lastly, the lower part of the ancient circle of Westphalia, there the plain assumes the appearance of a vast bog or moss, an appearance that is exhibited in different places through its whole extent. The large northern plain of Germany forms, as it were, a gulf between the Hartz, the Erz-Gebirge and the Thuringian mountains. This Saxon plain, of which Leipsic is the centre, is distinguished from the rest by a higher elevation and a more fruitful soil. The centre of Germany is almost covered with mountains; but little space is left for the plains, unless we consider as such, the level and continuous heights, by which some of the rivers are separated. Thus, the narrow vallies of the Kocher and the Jaxt are overtopped by a lofty ridge,^d while, on the other hand, the large valley of the Neckar, is constantly varied by detached hills. That part of the country is diversified by picturesque scenery; it abounds in verdant and well wooded vallies, watered by clear streams. But the vallies in the centre of Bohemia, and in Upper Swabia, are of a character still more imposing. The banks of the Maine, the Fulda and the Moselle, are

remarkable for their varied scenery, and the valley of the Rhine unites the grandeur of a fine landscape with the appearance of a highly fruitful country. The large and high plain of Bavaria, watered by the Danube, extends to a great distance; the country is cold but fruitful; it is in some places covered with marshes, and in others with forests of fir trees. But on entering the Austrian territory, the traveller finds himself surrounded by branches of the Alps; he wanders near precipices, crosses defiles, or descends into vallies as rich and as varied as those in Switzerland, and it is only in Lower Austria, to the north of Vienna, that he again meets with extensive plains.

The rivers in Germany may be now considered. The Danube has been already mentioned in our account of Hungary and Walachia, but it was only the central and lower part of its course, for the higher part of it is situated in Germany. That great river rises on the heights of the Black Forest, from three sources; the *Brigach* and the *Brige*, which are the most considerable, and the *Donau*, a feeble stream that is enclosed in a stone basin, in the court of the castle of Donau-Eschingen. It is therefore the first that may be considered the source of the Danube. The infant river, flowing rapidly but without any cascade, receives the *Iller* above the town of Ulm, and by its junction is rendered navigable. Its depth is now about eight feet, and it increases gradually to forty-two. The *Lech* and the *Iser* descend from the base of the Tyrolese Alps, and traverse Bavaria; one of them passes by Augsburg, the other waters Munich, and their swollen streams flow into the Danube. Enlarged by these accessions, it winds to the north near Regensburg or Ratisbon,^e and as it approaches Austria, is united with the Inn. The long course of the Inn, almost equal to that of the Danube, its noble origin from a lake in the midst of alps and glaciers, and its clear blue water, so different from the turbid streams of the Danube, are perhaps the only reasons, which have of late induced some German geographers to consider it the principal river; in the rest of Europe the Danube maintains its ancient empire. The upper part of the course of the Danube terminates at the confluence of the Inn. That part of its course from Passau to Vienna may be considered as a distinct region; the river passing between mountains, has in many places no other valley than its bed, and even that is obstructed by rocks, by which its waters are agitated and broken. The rocky island of Warth, opposite Grein, divides its course into two branches, the *Hassgang*, which is not navigable, and the *Strudel*, which may be passed without danger, since its rocky channel has been excavated by miners. At no great distance below that part of its course, its waters are impelled against a rocky promontory, and precipitated on one side into a gulf called the *Luog*, and on the other into the *Wirbel*, a dangerous and rapid eddy. As it approaches Vienna, its streams are diffused over a broader surface, it encloses several islands, and its course becomes gradually slower. The *Ens* is the largest river which it receives from the south; but even that feeder is inferior to the *Morava* or the *March*, which conveys to it at the confines of Hungary all the streams of Moldavia.

^a Mont Tonnerre.

^b The original simply states, that it has been customary to join it with the Netherlands. It is in fact a component part of the kingdom of the Netherlands, and at the same time a member of the German Confederation. It was formerly a part of the Austrian and French Netherlands.—P.

^c The term ancient (*ancienne*) in this and many other instances in Germany, merely refers to the political state of the country previous to the

late arrangements. *Former* would more exactly express what is intended.—P.

^d "The narrow valleys of the Kocher and the Jaxt form, as it were, ravines in a level table-land."

^e It is not true that it winds to the north after it is enlarged by these accessions, nor is it so stated in the original. The Lech enters it before it makes this curve, but the Iser some distance below it.—P.

The Rhine may be more correctly called a German river than the Danube, although the source and the mouth of the Rhine are not situated in Germany. That fine river rises in the southwest part of the canton of the Grisons, a country in which all the streams bear the name of *Rhein* or current, a word that appears to be of Celtic or ancient Germanic origin. It is thus difficult and vain to determine whether the *Fore Rhine* (*Vorder Rhein*,) which is formed by several springs at the base of Mount Crispalt, a branch of Saint Gothard, and on the sides of Mount Nixenadun, or the *Hinder Rhine* (*Hinter Rhein*,)^a issuing majestically from beneath a vault of ice, attached to the great glacier of Rheinwald, ought to be considered the principal branch. But at all events the *Middle Rhine* is only an insignificant branch, of which the proper name is the *Froda*; although it derives from a neighbouring village, the distinctive term of *Rhein* or current of *Medel*. Descending from these snowy heights, which are more than 6000 feet above the ocean, the Rhine leaves the country of the Grisons, and throws itself into the Boden See or lake of Constance, at the level of 1250 feet.^b M. Hoffmann, a distinguished German geographer, supposes that the course of the Rhine was once very different; that as soon as it had passed the territory of the Grisons it traversed the mountains of Sargans, entered the lake of Wallenstadt, flowed from thence into that of Zurich, and, following the present channel of the Limath,^c united with the Aar opposite the small town of *Rein*.^d That hypothesis, founded on some local observations, is indeed worthy of attention, but it requires to be corroborated by additional facts before it can be admitted. Following its present course, the Rhine, after leaving the lakes of Constance and Zell, arrives at a lower branch of the Alps, a little below Schaffhausen, in crossing which it forms the celebrated fall near Lauffen, which has been so often admired, although its elevation is little more than fifty feet, an elevation inferior to that of the secondary falls in Scandinavia. After its fall at Lauffen, it is about 1173 feet above the level of the sea, but when it reaches Basle, it is not more than 765. That part of its course, which is very rapid, is broken by a fall near Lauffenburg, and the dangerous eddy of Rheinfelden. The Rhine unites there with the Aar, a river almost equal to it in size, and one which, after being enlarged by the streams and lakes of Switzerland,^e brings a greater body of water to the Rhine than that which it receives from the lake of Constance. After it passes Basle, the Rhine turns to the north, and waters the rich and beautiful valley, in which are situated Alsace, part of the territory of Baden, the ancient Palatinate and Mayence. Its course onwards to Kehl is very impetuous; but flowing afterwards in a broad channel, studded with agreeable and well wooded islands, it assumes a very different character; its banks have been in several places gradually undermined, and its waters are covered with boats and rafts. The breadth of the river at Mayence is about 700 yards;^f it there waters a romantic, though fertile country, and a line of hills covered with vineyards, extends at no great distance from its banks. It receives in that part of its course the Neckar, which conveys to it the waters of Lower Swabia, and the Maine, which in its numerous windings collects

the streams of the ancient Franconia. The Rhine is confined by mountains from Bingen to the country above Coblenz; small islands and reefs are formed by the rocks, and according to a supposition, which is by no means confirmed, its course was in ancient times broken by a cataract between these two towns.^g In its picturesque passage through that high country, at the base of many old castles, suspended on rugged rocks, the Rhine receives among other feeders, the Lahn, flowing in a deep valley between mountains, and the Moselle, which, free from shallows, marshes, and every incumbrance, resembles in the mazes of its meandering course, a canal fashioned by the hand of man, and conducted through vineyards and fertile meadows. The confluence of the Rhine and the Moselle, may be considered the boundary of the romantic course of the former. It then flows through an open and plain country, and receives among other feeders, the Ruhr and the Lippe. Having reached Holland, its three artificial branches, the *Waal*, the *Leck* and the *Yssel*, form the great delta in which are situated the wealthiest towns in that industrious country. But its waters are divided into numerous canals, its ancient channel is left almost dry, and a small brook, all that remains of the majestic river, passes into the sea. According to every principle of physical geography, the Leck and the Yssel, if not the Waal, must be considered the present mouths of the Rhine. The Meuse has obtained at Rotterdam and Dordrecht, a distinction which it does not deserve; it is enough that it inundates the Biesbosch; it has no claim to any other mouth than that at Moerdyck. But it is with rivers as with men, and both are occasionally raised into notice by chance or fortune, and the influence of incorrect opinions. The Delta of the Rhine has undergone so many natural as well as artificial revolutions, so many slow and imperceptible changes, that it is very difficult to discover its ancient outlets.

The Ems sinks into insignificance after the Rhine; it is however no tributary river, but has its particular basin; its mouth is large and imposing, and it has formed by its inundations the gulf of Dollart. A more important river is formed in the mountains of central Germany by the *Werra* and the *Fulda*, two streams nearly of equal size, and which are called the *Weser* after their union.^h The *Weser* receives the *Aller*, which is enlarged by the *Leine*; it becomes very broad near its mouth, and flows into the North Sea. From the shallowness of its bed, it ceases to be navigable for large vessels four or five leagues below the town of Bremen, and in some places its waters are subject to temporary stagnations.

The *Elbe*, which is larger than the *Weser*, rises in the *Riesen Gebirge*, or Giants' Mountains, and is known at its source by the Slavonic name of the *Labbe*. Its principal sources are the White Fountain, at the base of the *Schnee-Kuppe*, and the eleven fountains of the *Elbe* in the Navorian Meadow. The river takes the name of the *Elbe* after the junction of these streams, and it is precipitated by a cascade of two hundred and fifty feet into the valley of *Elb-Grand*. It receives from the south of Bohemia the *Moldawa* or *Mulda*,ⁱ the Bohemian *Wittawa*, which as it is deeper and broader than the *Elbe*, ought perhaps to be con-

^a These two branches are also called the Lower and the Upper Rhine. There is a third branch called the Middle Rhine, which unites with the Lower Rhine, and is strictly the longest tributary.—P.

^b "1223 Fr. feet."

^c Limmat.

^d Hoffmann's German Sketches.

^e "It serves as an outlet to almost all the rivers and lakes in Switzerland."

^f "More than 2000 feet."

^g "But there is no sufficient proof that it was ever interrupted by a fall."

^h Busching supposes that the *Werra* is the principal branch, and considers its name a modification of that of the *Weser*.

ⁱ Moldau or Muldau.

sidered the principal river. After receiving the *Egra*,^a the Bohemian *Oritza*, from the west, it issues from the circular basin of Bohemia, by a very narrow opening through steep sandstone mountains, an opening that appears to have been formed by a natural revolution, and to have afforded a passage for the water, with which the lower part of Bohemia was at one time covered. Descending into the plains of Saxony, the principal rivers that flow into the Elbe, are the *Saale* and the *Mulda*;^b it is increased by the *Havel* from the sands of Brandenburg, but it might be more correct to consider the Havel as a series of lakes, that are chiefly fed by the *Spree*. The Elbe seems first to direct its course towards the Baltic sea, but it turns to the west, and after having passed the hills of Luxemburg,^c it divides itself into several branches, which encompass the low and fruitful islands on the south of Hamburg. Vessels arrive at the port of that town, where the Elbe becomes suddenly very broad, and resembles an arm of a sea, rather than a river. The effect of the tides is obvious at the distance of twenty-two German miles, and at the time of the flux, the course of the river towards the sea is wholly obstructed. The Elbe mixes its water with that of the sea below Brunsbittel, but its mouth is placed by the mariners and traders that resort to Hamburg, lower down, opposite the harbour of Cuxhaven.

The Oder, which in the German dialect of Pomerania is called the *Ader*, and of which the ancient Wendo-Slavonic name is the *Wiadro*, a word that signifies a pitcher, takes its source in the mountains of Moravia, in the circle of Olmutz; but the *Elsa*, which rises from the base of the Carpathians, is in reality the principal source. The Oder traverses the whole of Silesia, where it inundates, undermines and changes almost every where its low and sandy banks; its channel is in many places obstructed by the large oak trees, which it overturns in its passage through the forests of upper Silesia. The same appearance of confusion and disorder is observable throughout the course of the Oder; ill confined by the sands of Brandenburg and Pomerania, it forms in many places large fens and turbid^d lakes. The *Wartha*, a tributary stream of the same description, issues from Poland, and at its junction is almost as large as the principal river. The Oder divides itself afterwards into different streams, and flows round marshy islands. The eastern branch, between Gartz and Stettin, or the *Great Reglitz*, as it is called, is best adapted for navigation; the other retains the name of the Oder, and both fall into the lake of Damansch. The *Papen Wasser* or outlet of that lake communicates with the Frisch Haf or fresh water sea. According to local usage, the Frisch Haf is divided into the great and the little Haf. That extensive lake is wholly fed by streams and rivers; no salt water ever flows into it. It passes into the Baltic by three outlets or rivers, the *Peene* on the west, the *Swine* in the centre, and the *Divenow* on the east; of these the Divenow is the shallowest, and the Peene the deepest. They are indeed the only proper mouths of the Oder; their banks have undergone considerable changes, and more than one ancient city built on their sandy shores is now buried under their waters.^e

Such are the principal rivers in Germany. We ought next to mention the remarkable lakes, but there are not many that merit that distinction. The Boden See or lake of Constance between Swabia and Switzerland, the lake of Chiem in Bavaria, that of Atter in Upper Austria, that of

Cirknitz in the calcareous mountains of Carniola, those of Dummer and Steinhuder in Hanover, of Waren or Müritz in Mecklenburg, and the series of lakes formed by the Havel in Brandenburg, are all of them modified by local circumstances, so that the description of them cannot be separated from that of the particular countries in which they are situated.

The climate of Germany is greatly modified by the elevation and declivities of the country, but independently of that cause, it does not admit from its extent in latitude of any vague or general definition. It may be divided, however, into three great zones, and these too are susceptible of other subdivisions. The first is that of the northern plains, of which the temperature is not so cold, as it is humid and variable; they are exposed to every wind, while fogs and tempests are conveyed to this region from two seas. The north-west plain is subject, from its vicinity to the North Sea, to frequent rains and desolating hurricanes. The influence of the Baltic on the north-east plain is less powerful; the climate, though colder, is not so humid and variable. The second general zone comprehends all the central part of Germany; Moravia, Bohemia, Saxony, Franconia, Swabia, Hesse and the country on the Rhine. The mountains in that extensive region form a barrier against the effects of the maritime climate. The sky is not obscured by mists, and the regular order of the seasons is not interrupted by winds and tempests; but the elevation of the soil renders the climate colder than in other countries in the same latitude nearer the level of the sea. This zone, the most agreeable of any in Germany, extends from the forty-eighth to the fifty-first parallel. It may be subdivided into three regions: the first is that of Hesse and Saxony, where the grape yields only an acid and imperfect wine, but the peach and the apricot ripen: the second includes Bohemia, Moravia, and part of Franconia, where, from the height of the mountains, the snow is of longer continuance, but the effect of the summer's heat is more sudden and powerful, so that abundant and early harvests depend in a great degree on favourable exposures: lastly, the territory on the Maine, the Neckar and the Rhine; the grape is there of a better quality, woods of chestnut and almond trees grow in different parts of the country, and the summers are warmer and less variable than in the northern provinces of France. The climate of the last region, in which the central towns are Mayence, Heidelberg and Wurtzburg, is finer than any other in Germany, and one of the most salubrious and agreeable in Europe. The third general zone is that of the Alps. The lofty heights and rapid declivities connect very different climates; thus the culture of the vine ceases in Bavaria and Upper Austria, and appears anew with fresh vigour in the neighbourhood of Vienna. The eternal glaciers of Tyrol and Salzburg are contiguous to the vallies of Stiria and Carniola, covered with fields of maize or vineyards, and almost border on the olives of Trieste, and the lemon trees of Riva. The limits of these regions, in as much as they are marked by distinct climates, shall be more accurately defined in our account of the different parts of Germany.

The great abundance of mineral springs, both hot, and cold, bitter and acidulated, is a characteristic feature of the German territory. The thermal springs of Aix-la-Chapelle, Pymont, Carlsbad, Teplitz, Baden on the Rhine, Bruck-

^a Eger.

^b Milde.

^c Luneburg?

^d "Tourbeux," abounding in peat.

^e These three outlets of the Oder embrace the islands of *Usedom* and *Wollin*.—P.

enau and Wisbaden, attract every year many wealthy visitors. Those of Ischl, Baden near Vienna, and many others, though less resorted to, are nowise inferior. The acidulated waters of Selters,^a Driburg and Rohitsh, the bitter waters of Seidschutz and Seidlitz, and numerous other mineral springs, are sufficient proofs that the German soil^b abounds with veins or deposits of the most varied minerals. But it must not be inferred that Germany is ill provided with good and wholesome water for the ordinary purposes of life; the country is in general well supplied with that article of primary necessity, and the only exceptions are to be found in some marshy districts of Westphalia, and in some of the cold vallies in Salzburg.

We may now mention the most remarkable objects in the three natural kingdoms; we shall commence with the mineral.

Some mines of copper and iron, some traces of gold in ores of arsenic, and of silver in lead ores, have been discovered in the mountains of Moravia, Silesia and eastern Bohemia. The metallic productions, however, are not abundant, or of much value, but in the same part of the country are observed quarries of marble, mines of coal, and several precious stones, among others, the Silesian chryso-prase. The chain, that separates the basin of Bohemia from the plains of Saxony, may be called by way of distinction, the metallic region, for it contains indeed the richest deposit of silver in Europe, and the only one, which has not hitherto been apparently diminished. It is certain that during the last forty years of the eighteenth century, not less than twenty-two millions of Saxon crowns (£3,570,500)^c were coined at Freyberg. The same mountains are equally rich in tin, copper and iron, but the tin is most common and of the best quality on the side of Bohemia, where the mines are not perhaps inferior to those of Cornwall. The Bohemian silver mines, which were at one time worked with profit, are now neglected or exhausted. The gold washings which, if former writers have not exaggerated, were at one time very productive, are now of secondary importance in Bohemia and Saxony. But the one and the other of these two countries contain every possible variety of metals in greater or smaller quantities, and in both are also found the most useful varieties of granite, marble and porphyry, as well as crystals and precious stones, less perfect it is true than those of the east, but among which, the Saxon topaz and Bohemian garnet are still considered valuable. There are fewer minerals in the hills of Thuringia and Eichsfeld, but an elevated country between the base of these mountains, and that of the Hartz, covers an immense layer of copper, and near the middle part of this lofty district, is situated the town of Mansfeld. The depth of the bed below the surface varies from a hundred and sixty to two hundred and eighty feet, it contains also petrifications and very curious fossil remains. A short way to the east, and even under the channel of the Saale, a vein of salt water extends probably from the base of the Erz-Gebirge mountains to the salt lake of Eisleben, and the celebrated salt springs of Halle. The extensive deposit of copper appears to terminate near the base of the Hartz. The miners in the Hartz mountains work silver, lead, copper and iron, but their produce is every year diminishing, and it has never been equal to that of the metalliferous chain. Iron is the only metal generally worked and disseminated in the mountains between

the Weser, the Maine and the Rhine. It is most abundant in the mountains of Westerwald, of which the greater part are situated in the dutchy of Nassau, but it is also very common in the ancient dutchy of Westphalia and the dutchy of Berg, from both of which, the workshops and armories of Solingen are supplied with steel, inferior only to that of Stiria, and if that be excepted, better than any other in Germany. The working of coals and the manufacture of salt in the same part of the country are still more lucrative, and the same observation is applicable to the mountainous region on the west of the Rhine, or the continuation of the Ardennes and the Vosges. The coal mines in the branches of the Ardennes, are peculiarly valuable, and they appear to be connected with others in the Low Countries. The porous basalt and volcanic ashes of Andernach, the last of which are used in making the cement called *trass* by the inhabitants, may recall the numerous volcanic formations in the lower basin of the Rhine. The mines in the Black Forest yield silver, copper and iron, in small quantities. The two most remarkable objects in the eastern branches of the Alps, that extend across the Bavarian and Austrian territories, are the long series of salt springs, that follow the base of the northern Alpine chain in the direction of Reichenhall in Bavaria, and Hallein in Salzburg, from Hall in Tyrol, to Ischl and Clusser above the Ens in Austria, and the rich deposit of the best iron in Europe, situated in Stiria, on the east side of the Noric Alps. Besides these, ought to be mentioned the great lead mines of Carinthia, and those of quicksilver near Idria, which, after the mines of Almaden, are the most productive of any in Europe. What appears to us most worthy of notice in the mineralogical geography of Germany, has now been stated; a number of other minerals, which, however curious and interesting to the mineralogist, are of secondary importance, shall be mentioned in the account of the countries in which they are situated.

The forest trees hold the first rank among the vegetable productions of Germany, for they not only supply the inhabitants with timber for their ships, houses, manufactories and mines, but a considerable quantity is every year exported into different countries. The oak abounds in the central region, and plantations of them are seen almost on every hill. The other trees are the beech, the ash, the elm, the poplar, the pine and the fir; in sheltered spots, the walnut, chestnut, almond and peach trees display in the spring their rich and varied blossoms. This description is applicable to the central zone of Germany; the coniferous trees, and principally the pines, which in that region are confined to the heights and some arid districts, become more common in the sandy plains watered by the Oder and the Elbe. But these trees are only of an ordinary quality, and it is vain to look in northern Germany for the hard pine and lofty fir, with which the fleets of Scandinavia are furnished. The forests of pines follow the course of the rivers, and extend generally from north-west to south-east; deciduous trees, or such as change their leaves, are seldom seen amongst them. To these monotonous and sombre forests succeed wastes covered with heath, a plant equally social, and which exhibits in miniature the vegetation of the neighbouring forests. Extensive meadows along the banks of rivers, and marshes or alluvial deposits near the sea coast, make up the remaining part of the northern plains of Germany. The

^a Seltzer.

^b "The northern plains excepted."

^c "85,800,000 francs."

fine hills of eastern Holstein, of maritime Mecklenburg and the island of Rugen, must not be confounded with these plains, for their vegetation is different, and the oak reappears on a more fruitful soil. That narrow frontier ought not to be separated from the Dano-Cimbric islands and peninsulas.

The south of Germany, which is connected with the Alps, exhibits probably two scales of vegetation; that of the northern declivity from the Tyrolese Alps to the Danube, and that of the eastern declivity of Austria, Stiria and Carniola, not to mention the southern frontier. As to the first of these divisions, the fir and the larch appear to grow at the height of five thousand five hundred feet, and perhaps the *Pinus cembra* at a still greater elevation.^a But that region of coniferous trees does not terminate below the height of four thousand feet, to give place to a region of beech trees, as it does in northern Switzerland, according to the admission of Wahlenberg. At an elevation so low as two thousand feet, the hills in Bavaria are covered with the juniper and the red pine; whilst the oak and the beech in the neighbourhood, though of moderate size, are by no means rare. The birch is, after the pine and the fir, the most common tree on this declivity. The country between the Lech, the Iller and the Upper Danube, corresponds better with the classification of Wahlenberg, and it is probable that the apparent anomalies may be explained by the action of the prevalent winds, and the nature of the soil. The vegetable zone of Austria, or the eastern and south-eastern declivities of the Alps, exhibits a more rapid succession from the region of eternal snow on the Glockner, and the heights adorned with the Alpine pink, the *Valeriana celtica*, the *Rhododendron*, the *Soldanella* and the *Aretia*, to the vineyards on the frontiers of Hungary, and the olive woods of Istria. The precise limits of the different vegetations have not been indicated by botanists; the culture of the vine ceases at the height of two thousand feet, that of wheat at four thousand, and the country at a greater elevation is mostly covered with pasturage and coniferous trees.^b

The flora of central and southern Germany abounds chiefly in umbelliferous and cruciform plants, but the *Primulaceæ* and *Phyteumæ* are most common in the Alpine districts. Bulbous plants succeed best in the warm vallies of Austria, and heath, *vaccinia* and juniper in the northern plains. The humid meadows on the central mountains are enamelled with anemones, hyacinths, violets and lilies.^c The underwood and hedges in the same part of the country, are formed by the elder,^d the mahaleb plum tree, the fruit-pendant rose, the medlar, the cornel, the cinnamon rose and the eglantine. The plants in central Germany add to the beauty of the country; the verdure of spring continues for a long time, and many Alpine shrubs and flowers follow the course of the rivers from their source. Thus, the *Cytisus laburnum* extends along the banks of the Rhine and the Danube.

Grain of almost every kind is cultivated in Germany; wheat and barley are most common in the south, and the Bavarian winter wheat is preferred to every other. Spelt is generally cultivated in Baden and Wirtemberg, and on the Rhine and the Maine; maize appears in great profusion in Stiria, Moravia and Tyrol; buckwheat abounds in the

sandy plains on the north, and manna or *Festuca fluitans* is cultivated on the banks of the Oder. Germany, taken in its whole extent, produces certainly a greater quantity of grain than is necessary for the consumption of the inhabitants, and the surplus produce is exported to Switzerland, Holland, Sweden and some of the eastern provinces of France. If there should ever be a scarcity of grain hereafter, the increasing culture of the potato, which has become very general in the north, might of itself be sufficient to prevent the recurrence of such famines as formerly happened in Saxony and Upper Austria.

Few countries are better provided with alimentary vegetables than Germany, and many of them are of excellent quality. The cabbage, for example, which is exported to most countries in Europe under the name of *sauer kraut*,^e surpasses any that grows in Belgium, and the Germans say as much of different sorts of turnips, carrots, peas and beans. It cannot indeed be disputed that the culture of these vegetables, so well adapted to the patient character of the Germans, has been carried to a great degree of perfection. Gardening is much modified by climate, and although the rich inhabitant of Holstein cannot boast of his gardens, it is certain that the people in many districts of central Germany, less favoured by nature, derive their subsistence from the culture of fruit trees and culinary plants. The health of the Germans may be partly attributed to their great consumption of vegetables.

The hop is a very useful plant, and one that is well cultivated in Germany; it finds indeed in that country its soil and climate. The abundant harvests, particularly in the neighbourhood of Brunswick, in Bohemia and Bavarian Franconia, supply the numerous breweries, which, after all that has been said of English ale and porter, maintain their ancient renown. The culture of tobacco, although clouds of smoke rise at every jovial meeting, is not much improved; and the German tobacco is still much inferior to the American, the Turkish and the Persian.^f The madder of Silesia, the saffron of Austria, and the *Reseda luteola* or dyers' weld^g are now less used in the arts, and the cultivation of them has proportionally diminished. Germany does not produce more than a third part of the hemp, which is used for its sails and cordage. The prejudice in favour of Russian hemp might at once be dispelled by the appearance of the crops which grow in the territory of Baden; in that country the stem rises sometimes to the height of sixteen feet, and a single pound of hemp has been converted into more than twenty yards of cloth.^h Flax, on the contrary, is very generally cultivated, and the most of it is manufactured in Germany.

The vineyards of Germany have been mentioned in our observations on the climate. Those on the banks of the Rhine and the Maine have not wholly lost their celebrity. The Johannisberg, the Nierenstein, the Leiste, the Stein and others have been mentioned by geographers, and extolled by poets, and they are still drunk by some of the old German patriots, and by a small number in Russia and Holland. But the example of the nobles, the low price of French wines, and the restrictions imposed at the interior custom houses on the transportation of the German wines,

^a Compare Wahlenberg, Tentamen de vegetatione Helvetiæ, sect. 34; Kesthofer, Bemerkungen, and Schow's Geography of Plants.

^b Schow.

^c "Mugnets," lilies of the valley, *Convallaria*.

^d *Sambucus racemosa*.

^e *Sauer*, acid or sour, and *kraut*, cabbage; * hence the French corruption *chou-croute*.

^f *Kraut* signifies herb or plant in general, and is particularly applied to coleworts and cabbage.—P.

^g "To that of America and Macedonia."

^h "Gaude d'Erfurt," the weld of Erfurt.

ⁱ Hassel's Introduction to Germany, p. 40.

prevent their circulation, and ere long the culture of the grape may be abandoned, which, under a more patriotic administration, might reward the labour of the husbandman.^a The north of Germany is now generally supplied with the wines of the Garonne, which are brought into the country through Bremen, Hamburg and Stettin. The Hungarian wines are consumed in Silesia, as well as in Poland; and the vineyards of Austria, Stiria and Tyrol, though perhaps inferior in quality, return a considerable profit. Those on the banks of the Moselle, the Neckar and the lake of Constance yield only ordinary wine, and the produce of the vineyards of Naumburg and Grünberg, and of Witzhausen and Jena, may be compared to vinegar.^b The produce of the vineyards in the whole of Germany, is supposed to amount annually to twelve millions of *eimers*,^c a quantity equal to the half of the produce of Hungary, and a sixth part of the produce of France.

The culture of fruit trees is better suited for the climate; apples, pears and cherries are mostly cultivated in the north; the chestnut, the almond and the peach in the central zone. The apple of Borstorf, that excellent fruit, which has been mentioned in our account of Russia,^d has been transplanted in Germany, but without much success.^e Attempts have been made to force the mulberry and to introduce silk worms, but the climate, with the exception of a small part of Austria, is ill adapted for it. It is now imagined that these useful insects may be nourished on the leaves of other trees indigenous to the country.

Numerous herds of cattle form no insignificant part of the wealth of a country so abundant in pasturage as Germany. The oxen are of two kinds. The one is that of the Alps, common in Austria, Bavaria, Tyrol and Salzburg; the cattle are reared in those countries in the same way as in Switzerland; the pastures are as fertile and aromatic, but it is certain, though it cannot be easily explained, that the produce of the dairy, the milk and the cheese, are neither of so rich nor so good a quality. The other breed is that of East Friesland, and it is almost the only one in Westphalia, Holstein and the low districts called the *Marsches*; but the best of these large and heavy oxen are imported from Jutland. The Stirian ox is of Hungarian origin, and the Swiss breed, which has been introduced into Hohenlohe, is thought better than any other in Germany. According to a statistical report lately published, the number of horned cattle in the country is supposed to be about twelve or fourteen millions;^f the number of sheep is not less than thirty millions,^g and the breed of the latter has been crossed and improved in most parts of Germany, and particularly in Saxony and Silesia. The hog, of which there are three varieties, is very common in Westphalia, Bavaria and Pomerania. Germany exports a great quantity of salt meat, hams and hides. The different kinds of wool are more than sufficient for its numerous and important manufactories.

The German horse is more remarkable for its strength than the symmetry of its form; but much has of late years

been done to improve the breed of that valuable animal. The best carriage horses are said to be those of Mecklenburg and Holstein, and it is with them too that the heavy cavalry are supplied. The horses of East Friesland are strong, but heavy and ill made; those of Stiria and the other provinces bordering on the Alps, are hardy and sure footed. The swiftest horses are bred in Bavaria, and racing is no uncommon amusement in that country. The horses from the heaths of Lenne in Westphalia are very fleet, but small and ill proportioned. The light cavalry are mostly mounted on horses from Poland and the Ukraine.

The provinces are well stocked with poultry; there is no scarcity of turkeys in Stiria, nor of geese in Pomerania and Westphalia. Bohemia abounds with pheasants, and the heaths and forests afford shelter to every kind of game; one exception only is mentioned, it is said that the red partridge has not hitherto been seen in Germany. The numerous flocks of wild geese are destructive to the grain, and the stork is protected by popular superstition. The heron frequents the banks of the Rhine; the eagle of the Alps, different kinds of hawks, owls and crows are common to the mountains of Austria, and the *Parus pendulinus*, a bird that has been noticed in our account of Astrakan, suspends its nests from the branches of trees. All the birds of the Carpathians and the Alps, have been observed in southern Germany, and those on the shores of the Baltic are found in great numbers throughout the northern plains.

The sea fishing in Germany is not of much importance, although some industrious inhabitants of Hamburg, Altona and Embden, repair every year to the whale fisheries in Greenland, and the shoals of herring on the banks of Shetland. The important fisheries in the Baltic, which are shared by Prussia, Mecklenburg and Denmark, shall be hereafter more fully mentioned. At present, it may be remarked that the river fishings in Germany, though valuable, might be rendered more so. The large *huso*, and many different kinds of fish, are taken in the Danube; several species of *Cyprinus* and *Perca* are found in that river, but the eel is never observed in its waters, nor in that of its feeders.^h It might be worth while to distinguish the different species that belong to the upper part of the Danube before its junction with the Inn, from those that the Inn brings to it from the Alps. The salmon abounds most in the Rhine, but it is by no means rare in the Elbe and the Weser. The sturgeon is found in the Oder, and the finest trouts in the rivers that flow from the Hartz and the Erzgebirge. The *muræna* is common in the numerous lakes of Pomerania and Mecklenburg. Luneburg is noted for its lampreys, the lake of Chiem for its silver salmon, and the lake of Wurm for its blue umber.ⁱ There are besides many other sorts, which it is unnecessary to enumerate. The pearls that are taken in some streams in Bohemia, Saxony, and the Ardennes, are for the most part small^k and of little value.

The urus and the elk exist no longer in the forests, but the bear, the lynx, the wild cat and the badger are some-

^a It is amusing to read the effusions of the German poets in praise of their vineyards. An excess of loyalty or wine is apparent. "What wine can be compared to our own." "Let the man who disdains the generous gifts of the *free Rhine*, drink with the slaves on the banks of the Seine." The loyalists of Frankfort and Mayence drink occasionally their sovereigns' healths in Rhenish wine. It would be much better if the navigation of the Rhine were rendered free.

^{*} "Les diplomates à Francfort et à Mayence"—the representatives at the German diet?—P.

^b "Scribentur Jene vel potius Gehennæ, ubi nascitur acetum."

^c "Austria produces 5 millions."

^d Omitted in the translation. "The Riasanki apples have been compared with the Borstorf apples in Germany." Vol. VI. p. 595, of the original.

^e "The culture of fruit trees is not very flourishing, but the Borstorf apple has acquired a deserved reputation throughout Europe."

^f "The number of oxen in Germany is estimated by the statistical writers at 12 or 14 millions."

^g "20 millions."

^h Cuvier.

ⁱ *Salmo Wartmanni*.

^k "Of a milk white colour."

times seen. The wolf is now rare ; it descends from the Carpathians and the Ardennes, but the peasants have extirpated it from the centre of Germany. The hamster or *Mus cricetus*, which appears to be indigenous to Saxony, since thousands of them are sometimes dug out of the earth, the field mouse and the water rat, are the most destructive animals. The fox, the marten and the beaver are not nearly so common as they formerly were. The princes and nobles of former times were the proprietors of immense parks abundantly stocked with game. There were in several principalities, fewer inhabitants than heads of game. The deer, the wild boar, the hare, and the rabbit were suffered to destroy the harvests of the peasantry, and what these animals spared, was generally rendered useless by a numerous party of princely or noble sportsmen. More

civilized and more enlightened, the German princes find higher enjoyments than that of seeing a stag torn to death by dogs, and it is only in some domains in Bohemia, Moravia and Saxony, that according to the court newspapers, twelve thousand head of game are killed in three days, or that three thousand hares are collected in a park, and destroyed in a single day for the diversion of a royal sportsman.

The industrious beaver is still observed on the heights of the Bœhmerwald, and on the banks of the Salza ; the wild goat^a and the chamois of the Alps wander among the glaciers in the country of Salzburg ; the marmot inhabits Tyrol and Upper Bavaria ; and the wild animals of the Carpathians and the Alps are, in general, common to the south-east of Germany.

^a The bouquetin or ibex.

BOOK CXVII.

EUROPE.

Europe continued. Germany. Second Section. Prussian States on the Oder and the Elbe.

AGREEABLY to the plan which has been already laid down, we shall commence our account of Germany with that of the countries watered by the Oder and the Elbe. These countries are principally occupied by the four Prussian provinces of *Silesia*, including a part of the ancient Upper Lusatia, of *Saxony*, including the northern part of the ancient kingdom of Saxony, the duchies of Magdeburg and Halberstadt, the country of Erfurt, and other small districts that extend to Eichsfeld, of *Brandenburg*, including Lower Lusatia, and all the old and new Marks, and of *Pomerania*, including both the ancient Prussian Pomerania, and that which has lately been ceded by the king of Denmark, who had obtained it from Sweden to indemnify him for the cession of Norway, but thought fit to give it up to Prussia, for a sum of money. These German states belonging to the king of Prussia, are peopled by about five millions three hundred thousand inhabitants, and occupy a surface of two thousand five hundred, or two thousand six hundred German square miles.

The large and fine province of Silesia is contiguous to the grand duchy of Posen, which has been already described; it is bounded by the kingdom of Poland on the east, by Bohemia, Moravia and the sad remains of the kingdom of Saxony on the west, and it is connected by its northern frontier with the other Prussian provinces. Thus its position is of mutual advantage to the province and the monarchy. According to the most accurate details,^a the surface of Silesia is about 720 German square miles, or nearly 12,000,000 English acres.^b The population amounted in 1819 to 2,061,589 individuals, and it is at present supposed to be greater than 2,100,000.

The *Quadi* and the *Lygii* are believed to have been the earliest inhabitants of Silesia. Some authors maintain that as the word *quad* signifies bad or wicked in ancient Teutonic,^c the Slavonians or the Poles merely translated the word, for *zle* in their language has the same signification. But the opinion of Dobrowsky is more probable; according to him, the Slavonic colonists, who settled in Silesia during the sixth century, took the name of *Zlesy* or *Zlesaky*, which signifies the last or the rear, to distinguish themselves from the colonists who were already in possession of Bohemia, and who were called *Czechy*, that is, the first or the van.

It cannot be doubted that Silesia was a Slavonic country in the sixth century; perhaps it was so from the time it began to be cultivated. But much knowledge cannot be ob-

tained concerning it before the eleventh century; it was then called the *Gau* of *Zlesane*. It remained for a long time a province of Poland. When Boleslaus II. divided his states among his children in 1138, Uladislaus II., the eldest, obtained with the supreme authority over Poland, the countries of Cracow, Sieradia, Pomerania, and Silesia, for his inheritance. Having attempted to deprive his brothers of their portion, he was driven from his dominions, and his brother, Boleslaus IV. succeeded him on the throne. That king made over Silesia to Boleslaus the Tall, Miecislaus and Conrad, the three sons of Uladislaus. The province then extended much farther to the north than it does at present, and it was divided by the three brothers into Upper, Central and Lower Silesia. Conrad died in 1178, and Boleslaus united Lower with Central Silesia, notwithstanding the remonstrances of his brother Miecislaus. At that time the name of Central Silesia fell into disuse, and the lower province became nearly twice as large as the upper.

The successors of Boleslaus and Miecislaus committed an error common to the princes of their age, that of giving appanages to their younger children. These appanages soon become separate states, and we are thus enabled to account for the great number of principalities of which the names still remain. Weakened by that policy, Silesia excited the ambition of John the Second, Duke of Bohemia, who conquered almost the whole country, at least fourteen Silesian dukes of the Piastian race submitted to him, and acknowledged themselves his vassals in 1327. But the dukes of Schweidnitz and Jauer maintained their independence, and their resistance was facilitated by the position of their territory, which was defended by the chain of the Sudetes. Charles the Fourth, emperor of Germany and king of Bohemia, obtained by right of his wife the whole of Silesia. Poland renounced by solemn treaties its just claims to the sovereignty of the country, and it was added to the Bohemian crown by an act of the empire;^d from that period to the year 1742, the Silesians continued the allies, if not the vassals of Germany.

Several important changes took place, soon after that period, in the political constitution of Silesia. The sovereignty possessed by the dukes of the Piastian race fell rapidly into decay. The separate principalities formed parts of a single political body by the establishment of a sovereign court of princes in the year 1498. The possessions of different dukes, who died without heirs, became in the course of time vacant fiefs of the Bohemian crown;^e such was the origin and history of the immediate principalities.^f Some of

^a Hoffmann's Statistical Tables.

^b "15,475,279 Magdeburg arpents."

^c Low Dutch, *kwaad*, antiq. *quaed*, bad, wicked.—P.

^d "The German empire guaranteed to Bohemia the possession of Silesia."

^e "The crown took possession of them, as vacant fiefs."

^f Those holding immediately of the Crown.—P.

the principalities, it is true, were given as fiefs to other princes, but the right of sovereignty was always vested in the kings of Bohemia.

The most of the Silesians having embraced the reformation of Luther or Calvin, suffered in consequence from the fanaticism and persecution of the Austro-Bohemian government. The victorious sword of Charles XII. compelled the emperor to adopt a more equitable policy, and not long afterwards, Silesia became, and has ever since continued, independent of the house of Austria.

Frederick II. of Prussia began his campaigns by invading Silesia, and he conquered, or rather took that country by surprise in the year 1740. It is admitted that his pretext was sufficiently plausible. As the crown of Bohemia had renounced not only the possession, but all its rights to Silesia, by the treaties of Breslau and Berlin, and other subsequent treaties, the kings of Prussia pretended that they had by that means become sovereign dukes of the country, and in their new character not subject to the emperor. To this claim it was justly replied, that Bohemia being an imperial state, could not of its own authority destroy the feudal tenure by which Silesia was attached to it, and through it, to the empire. The question was rendered more intricate, for one party considered Bohemia feudal only as to the electoral dignity, but as a kingdom, free and independent of Germany.^a According to the last supposition, Bohemia might at any time have renounced its sovereignty over Silesia. The Germans argued that Silesia was a part of the empire; the Prussians considered it a separate and independent state. The dispute has been abruptly decided by the present king of Prussia, who has included Silesia among such of his states as form part of the Germanic confederacy.

That part of Silesia on the east of the Oder, is a very large plain, slightly undulated by hills; it descends gradually from south to north, and differs in no respect from the plains in Poland.^b But in the western districts, the land is more unequal, and that portion of Silesia is bounded by high mountainous chains. The most elevated of these chains is the *Riesengebirge*, or *Giants' mountains*, which extends to the south of the town of Hirschberg as far as Trautenau and Friedland. Its direction is from the north-west to the south-east.

On the north of that central and principal chain, the Iser-Kamm extends to the north-west of Hirschberg as far as Marklissa in Lusatia. The Wohlische-Kamm is situated on the south-west of the Iser-Kamm, or crest of the Iser, and its direction is nearly from east to west. These two chains form, as it were, connecting links between the *Riesengebirge* and the *Erzgebirge* in Saxony. The heights in the county of Glatz, which are known by the name of the *Eulen-Gebirge*, or *Owls' mountains*, rise on the south of the central chain. The direction of these mountains according to the maps, appears to be from north to south; but they consist of three chains parallel to each other, and to the *Riesengebirge*, and their direction is from north-west to south-east. Several groups on the east of Glatz are situated nearer the plains. The *Zobten* or the most northern of these groups,

is detached from the rest.^c The *Schneeberg* or snowy mountains are situated to the south-east of the county of Glatz, in Moravia and Austrian Silesia. These mountains form the northern part of the *Gesenker-Gebirge*, or low mountains, an elevated table-land, that stretches across Moravia and Austrian Silesia, and joins the Carpathians.

Humid meadows and marshes are situated between these chains; the *White Meadow* on the sides of the *Riesengebirge*, is perhaps the largest; the meadow of the Iser is not much smaller, and the *Seefeldler*, an extensive peat moss in the district of Glatz, is about three thousand feet^d above the level of the sea.

The Baron Von Buch, a distinguished German geologist, has examined the *Riesengebirge*. Granite abounds; the steep and detached heights, of which the form may be compared to a hemisphere, are almost wholly composed of fine grained granite. Mica is observed on the surface, but very little is found at any depth below it.^e These masses seem to have been formed by crystallization, and they prove apparently that quartz, the primitive base of granite, has a greater affinity to feldspar than to mica. It is not difficult to follow the transition from rocks almost wholly silicious, and from granite slightly mixed with mica, through gneiss abounding with mica, and micaceous schistus including beds of limestone, to argillaceous rocks, such as argillaceous schistus, amphibole and aluminous schistus. The formation of the granite is more or less ancient according to the quantity of mica contained in it,^f and the quartz is found in more abundance, as the mica diminishes.

These rocks of a crystalline texture are in reality nothing more than primitive granite; besides they may be easily distinguished from the recomposed granite, which is observed between *Reichenstein* and *Warta*, for although that sort may be nearly as fine in the grain, it contains a great quantity of mica, and rests on a bed of micaceous schistus.

Gneiss or foliated granite is not observed at a great height on the *Giants' mountains*; it is there mostly separated from the micaceous schistus by mica, which forms rarely contiguous masses. It encloses a mass of selenite in the neighbourhood of *Bukersdorf*. The gneiss rises much higher in the *Eulen-Gebirge*, and its strata are more extensive. No deposits of calcareous rocks^g have been found in it, but metals have been at different times discovered.

Micaceous schistus is one of the most common rocks, particularly on the southern sides of the *Riesengebirge*. It appears to have been deposited by streams or currents proceeding from the south; and it passes into argillaceous, amphibolic and other sorts of schistus. It often encloses beds of limestone, and in some places of serpentine, the former of which seems to be the most ancient of the calcareous rocks. Granite^h is contained in the micaceous schistus in many parts of Upper Silesia, but none has been observed in the gneiss. The micaceous schistus in Lower Silesia, near the sources of the *Queis*, at *Friedeberg*, *Gicheren* and *Querbach*, is intersected in many places by metallic veins.ⁱ *Zinnstein* or oxide of tin is diffused in all the rocks,^k and garnets are found imbedded in sparkling cobalt.^l

^a "It was disputed whether Bohemia was a feudatory of the empire, with regard to its territory, or only a vassal, with regard to the electoral dignity, and in other respects a free but allied sovereignty."

^b Properly, it is a continuation of the plains of Poland.—P.

^c "Several groups on the east of Glatz project into the plains; farther to the north, the *Zobten* is almost insulated."

^d "2858 feet."

^e "Among the steep and craggy summits, there are several heights of a regularly hemispherical figure, which are composed of a fine grained gra-

nite, covered on its surface with mica, but which contains very little of that substance in its interior."

^f "The more ancient the formation of granite, the less the proportion of mica it contains."

^g Limestone.

^h "Granite."—Qu. *grenats*, garnets.—P.

ⁱ "Metallic beds (*bancs*.)"

^k "Dans toute la masse des roches"—through the whole mass of rock.

^l "Cobalt éclatant"—cobalt glance, gray cobalt.—P.

There is between Rudelstadt and Janowitz, a bed of garnets in amphibolic schistus, mixed with actinote and calcareous spar. The mine of Einigkeit near Kupferberg, is worked in a stratum, which consists chiefly of asbestiform actinote,^a mixed with copper and other sorts of pyrites.

The porphyry in Silesia rests generally on micaceous schistus, and serves as a support for argillaceous schistus. It is only in the principality of Schweidnitz that the traveller observes isolated cones of porphyry rising in the midst of stratified mountains. The Raben-Gebirge is a high and steep hill composed of porphyry, situated near Liebau, in the direction of Landshut. Another mass of porphyry, perhaps still more extensive, encompasses Friedland on the north and east. Vesicular porphyry is found near the stratified vallies of Schmiedsdorf, and the vesicles themselves are lined with crystals of quartz. Laminæ or plates of barytes are imbedded in its mass, and sandstone in some places rests above it. The Wild-Gebirge is divided near Schœnau in the principality of Jauer, into thin and perpendicular columns.

Besides the ancient serpentine, in the micaceous schistus, there is another sort, found in Silesia, which appears to be of a more recent formation, probably of the same date as the argillaceous schistus, at least it abounds in places where one might expect to find that schistus, but on the contrary, where the schistus is very common, it is seldom observed. In many places, particularly at Zobten, (an almost detached promontory of the Riesen-Gebirge,) the primitive rock, called *grünstein*, rests on a base of serpentine. It might be difficult to account for the appearance of the chryso-prase and the opal in the vicinity of Kosemütz.^b

The earliest coarse *detritus* of rocks, disintegrated or destroyed in any manner, forms what the disciples of Werner call conglomerates. Coal is generally found in them, and those in the principality of Schweidnitz are contiguous to the bases of lofty mountains. Wherever Silesia is bounded on the west by primitive mountains, there are no mountains that are stratified or of recent formation. Conglomerates are never formed by deposits brought from a distance; the rocks from which they have been detached, are always found in the neighbouring mountains. Thus in Upper Silesia, where there are no primitive mountains, there are none of these conglomerates, but their place is supplied by a fine grained sandstone, the materials of which appear to have come from a distance.

It is worth while to remark that the impressions of plants are often observed in the midst of these conglomerates; these plants, though now unknown, were obviously at one time indigenous to the climate.

The coal in Upper Silesia is in many places covered with iron in a state of oxidation,^c and it rests on a bed of bituminous wood, very friable and apparently of a lamellated texture.

There appears to be only one formation of stratified limestone in Silesia, and it is of the same kind as the one which rises to an immense height in the eastern Alps; it is the compact gray limestone that is common in many parts of Lower Silesia. It alternates with schistous clay, in which

copper is contained. The limestone in Upper Silesia is covered with strata of galena, and above the galena is another calcareous rock, finely grained and without petrifications; it is mixed with calcareous spar, calamine and brown hematite. It is covered in the neighbourhood of Tarnowitz with a bluish clay, and in other places with an oxide of iron, which in some places serves as a support, and in others as a covering for calamine.

A very narrow and steep chain near Habelschwerdt in the county of Glatz, consists of sandstone, of an uniform texture, united by a clayey cement. At a greater distance from the primitive mountains, the argillaceous cement is not observed in these rocks, and it is not improbable that the latest formations of sandstone are to be found near the immense masses of sand on the right side of the Oder.^d

The basalts in Silesia form the scattered and remote limits of the great basaltic range in Bohemia. Buchberg in the neighbourhood of Landshut is one of the highest basaltic hills in the province, but the summit is composed of stratified *grünstein*, which towers above the basalt. At no great distance from one of the tops of the Giants' mountains, a mass of basalt has been observed, which appears to rest immediately on the granite. The basalt near Krobsdorf is covered in many places with micaceous schistus,^e and it is in every respect similar to the most modern basalt in different countries of Europe.

Silesia is, from the number of its useful productions, one of the most wealthy provinces. Besides slate, mill-stones, fuller's earth^f and different kinds of clay, we might mention the marble near Kaufungen, the serpentine near mount Zobten and in the circle of Frankenstein, the porphyry near Schœnau, the rock crystal at Prieborn, Krummendorf and the Mummelgrube, the jaspers, carnelians, onyxes and agates at Bunzlow, and lastly, a particular sort of chryso-prase, which is found in the vicinity of Grache and Kosewitz.^{g, h}

The German geographers affirm that Silesia is wholly unprovided with salt;ⁱ but Heinitz, who from his official capacity must have had good means of ascertaining the fact, assures us that the salt springs in Upper Silesia might afford a very considerable supply, and that there is reason to believe that rock salt might be found at the depth of a hundred feet; hitherto, however, his expectations have not been realized.

Silesia is well supplied with peat and coal; it appears indeed that the annual produce of forty-three coal pits is not less than fifty thousand chaldrons.^k The same fossil abounds in the principalities of Schweidnitz and Neisse, in the county of Glatz, and in most parts of Upper Silesia. The best kinds of peat are obtained from the plains on the banks of the Oder. The alum, vitriol and calamine of Upper Silesia, and the arsenic of Reichenstein, are worked with advantage; but the gold which is mixed with the arsenic, was found in so small quantities, that the dangerous operation of extracting it has been discontinued. The working of the tin mines near Giehren has likewise been given up, although it is affirmed, that at a very early period they

^a Fibrous actynolite.

^b "It is uncertain what is the particular situation of the chryso-prase and opal which are said to have been discovered near Kosemütz." The chryso-prase is found at Kosemütz in Silesia, in veins or interrupted beds in serpentine, accompanied with chalcidony, opal, &c.—P.

^c "Fer oxidulé"—Magnetic oxide of iron?—P.

^d "Perhaps the immense masses of sand on the right side of the Oder, constitute the last member in the series of sandstone formations."

^e "—forms beds in micaceous schistus."

^f "Terres à pipe," pipe clay.

^g Qu. Kosemütz.

^h Heinitz's Account of the Mineral Productions of the Prussian Monarchy.

ⁱ Gaspari.

^k "There are 43 coal pits in operation, and the annual produce is equal to 1,200,000 bushels" (Fr. measure.)

yielded every year, nearly three hundred quintals. The quantity of cobalt which is annually obtained is not less than thirty-eight thousand quintals.^a

The copper mines of Rudelstadt furnish a supply of about eight hundred and fifty quintals; the produce of the others has not been determined. There is an extensive and valuable lead mine in which silver is contained, in the neighbourhood of Tarnowitz in Upper Silesia. It is stated that in ancient times the mine yielded about fifteen or sixteen thousand quintals of lead, and between three and four thousand marks of silver. It is affirmed that the annual produce of the mine is at present greater. Heinitz informs us that the strata of lead cover a surface of eleven square leagues, but his calculations appear to be too great. The iron mines are the most numerous and important of any in Silesia. The ore is not of a rich quality, for not more than twenty-four pounds of cast-iron are obtained from the quintal. A mine of spathic iron has been discovered in the neighbourhood of the royal foundry at Malapane, and the metal is easily converted into steel. The iron of Tarnowitz is of a very good quality, and that from a mine of magnetic iron ore near Schmiedelberg in Lower Silesia, is much used in cutlery. Mines of bog iron are situated in the direction of Wartenberg and Sprottau. The royal iron mines furnish employment to three thousand five hundred and sixty-seven workmen; but the value of the raw produce does not amount to much more than a million of crowns.^b The produce of the mines belonging to individuals has not as yet been ascertained.

It has been affirmed that there was at one time much silver in Silesia; only a small portion however is at present found in the lead mines at Tarnowitz, Reichenstein, and Silberberg; even in the last place the working of silver has been given up. The existence of spangles and grains of gold among the beds of quartz and sand near Goldberg is proved by well authenticated facts. It is also proved that in 1624, two ounces of gold were obtained from the washing of seven quintals and a half of sand and earth. The same metal has been found in other parts of the country, but in so small quantities as not to indemnify the expense of labour. On the whole, the metallic ores in Silesia, which are almost all situated on the side of Germany, or on the left of the Oder, are not very valuable, but they afford employment to the labouring classes, and supply partly the wants of the country.

The productions of the vegetable kingdom are more important, but it is certain that the crops in Silesia are inadequate for the numerous population, and a considerable importation is often indispensable. The quantity of grain imported into the province from Poland and Austria during six successive years, may be seen by the following table.

Years.	Wheat.	Rye, Barley, Oats.
	Quarters.	Quarters.
1819	1289	83,053
1820	2041	32,636
1821	2580	24,279
1822	4079	60,491
1823	6913	36,216
1824	7329	13,455 ^c

^a This must be a mistake, but it is so stated in the original. The produce of cobalt in the whole Prussian dominions is stated by Hassel at only 2,988 quintals (*centnern.*)—P.

^b "Scarcely equal to one million Prussian crowns."

^c Jacob's First Report, Appendix, No. 20.

^d "— that it is used only in the manufacture of vinegar."

All the ordinary kinds of grain in the countries in the north of Europe, maize, spelt, millet, and buckwheat, are cultivated in different parts of Silesia. The potato is a substitute for corn in the mountainous districts. The cultivation of lentils, peas and other leguminous plants, has been of late years improved and extended. Fruit succeeds best in the neighbourhood of Grünberg and Nieder-Beuthen. The inhabitants continue to cultivate their vineyards, although the wine is very ordinary; according to Busching, it improves by keeping, but Gaspari affirms it to be little better than vinegar.^d

Flax and hemp are the most valuable vegetable productions in Silesia; they succeed in most parts of the country, but the quantity raised is not sufficient for the numerous manufactories. The culture of flax is most flourishing in the neighbourhood of Neisse, Oels, Trebnitz, Sagan and Wartenberg; and the seed is imported every year from Livonia and other Russian provinces. Thread is also made from felwort,^e a plant of which the cultivation is rapidly increasing. The average crop of madder is supposed to amount to fifty or sixty thousand *steins*,^f and a considerable portion of it is exported. Weld or *Aster Atticus*, a plant that yields a yellow dye, is equally abundant; but it may excite surprise that the culture of saffron is neglected. As to the culture of tobacco, it cannot be supposed to be widely diffused in a country in which other crops are much more profitable. The silk raised in Silesia is too inconsiderable to be of much value; it appears from a statistical account that the number of mulberry trees throughout the country in 1794 was four hundred and eighty thousand, but the quantity of pure silk did not exceed four hundred and ninety-three pounds, while that of raw silk was only a hundred and thirty. It is likely indeed that the breeding of silk worms may be soon discontinued.

The wealth of Upper Silesia consists chiefly in its timber. The principality of Oppeln is almost one continued forest. The Oder flows through woods of thick and lofty oaks. In Lower Silesia, the mountains on one side and the extensive sandy plains on the other are covered with trees. The same remark is applicable to the neighbouring districts in Poland, but the want of wood is apparent in the country between Lusatia and the Oder. The most common trees are the oak, the pine, the pinaster^g and the fir; to these may be added the larch, which abounds in the principality of Jagerndorf, and from which turpentine is extracted. The value of the wood, potash, tar, rosin, lamp black and other articles obtained from the timber, and exported every year, is not supposed to be less than one hundred thousand pounds.^h

The Silesian wool, which in its original state was of a very good quality, has been improved by the introduction of Spanish sheep. The flocks are shorn twice a-year, and the summer's wool is considered the most valuable. The annual produce varies from a hundred and sixty to a hundred and eighty thousand *steins*, or from three millions five hundred thousand to four millions of pounds; but that quantity, great as it is, is not nearly enough for the demand of the woollen manufactures in the country. The number of sheep throughout Silesia is upwards of two millions three

^e "La petite gentiane."

^f The stein or German stone is equivalent to twenty-three English pounds.—Tr.

^g *Pinus pinaster*, cluster pine tree.

^h "More than two millions francs."

hundred thousand. Many cows are not kept, not more than are sufficient to furnish milk and cheese for domestic purposes; in some districts indeed, where horses and oxen are very rare, cows are used in tilling the land. The people on the mountains keep a great many goats, and if it be true, as has been affirmed, that two she-goats give as much milk as a cow, these animals must find excellent pasturage. The Silesian horses are small and of little value; the most of them were originally imported from Lithuania and Poland. It is true that the mountaineers on the side of Bohemia possess a larger sort, but it is by no means common in the rest of the country. Game is rare or abundant according as the districts are well or ill wooded. The lynx is one of the wild animals that is sometimes seen on the mountains; the beaver was formerly more common, but it has now become rare; and the bear, avoiding the habitations of man, has migrated to the solitudes in Poland. The fishings are found to be profitable; the salmon, the sturgeon, of which the length is sometimes from twelve to fourteen feet, the sparus,^a the glanis that weighs from forty to fifty pounds, the lamprey and the loach are often taken in the Oder. The numerous ponds or lakes abound with pike, murænæ and trouts.

The principal industry of Silesia is concentrated in the numerous and large villages in the neighbourhood of Hirschberg; it consists in the manufactory of cloth, woollen stuffs, coarse and fine linen, and other articles. The value of the lins exported in 1803 amounted to 6,691,216 Prussian crowns. Cloth to the amount of 2,669,609 crowns was exported in the following year, and the different cotton stuffs were not much less than 600,000. The linen goods were exported to Spain and the former Spanish colonies in South America; but that outlet was destroyed by the submission of the continent to the prohibitions imposed by Napoleon. The same trade has not since been recovered; the markets are now supplied by Great Britain and Ireland. The Silesian exports in 1805 were calculated to amount to 10,934,519 crowns, derived from the produce of the country, of which 7,020,693 crowns were derived from the vegetable, and 3,118,994 from the animal kingdom, and to 984,777 crowns of foreign produce; so that the total exportation amounted nearly to twelve millions of crowns. The imports into Silesia during the same year, were oxen, horses, swine, flax-seed, hemp, hides and other articles from Moldavia, Russia and Prussia, to the amount of two millions of crowns; more than a million in wine, iron, copper and thread from Austria; a great quantity of rock salt from Galicia; and about two or three millions in wines, silks, and colonial produce from Hamburgh, Berlin, Stettin and Dantzic. Thus the total importation in 1805 was not greater than eleven millions of crowns, so that there remained a balance of one million in favour of the province.^b If to these sums, that which was derived in 1805 from the transit trade on the conveyance of goods, be added, the whole might amount to twenty-six millions of crowns; but it is by no means certain that all the branches of exportation and importation have remained in their former channels. The wants of the province are the same; its resources, it is probable, have not regained their former level. The prohibitory system maintained by Russia, and the mutual re-

straints that the Prussian and Austrian custom houses oppose to each other, fetter the commerce of Silesia, which, had it been left to its natural liberty, might have at present been much more extensive than at any former period. The transit trade has constantly declined since the year 1766, when Frederick the Great established his custom houses, and in this respect Silesia has lost much more than it has gained by its separation from Austria.^c As it is now united under the same sceptre with the grand dutchy of Posen, and as the communication between Breslau and Dantzic is direct, these circumstances have tended to increase its foreign trade.

All the advantages which Silesia possesses from its geographical position, are more or less counterbalanced by its climate. The air in the southern districts is salubrious, but from the thick forests and the elevation of the soil, they are exposed to long and severe winters. The water is good in the mountainous districts towards Bohemia, but the great disadvantage of the climate arises from snowy winters and rainy autumns. The climate is milder in the northern part of the country, but the lakes and marshes infect the air in several places and render it unwholesome, particularly along the Polish frontier, where the inhabitants suffer much from the want of good water.

The Silesians may be divided into separate classes both as to their origin and religion. The most of the inhabitants speak at present the German language, and the greater part of them are the descendants of colonists from Franconia and the Rhine. The Germans to the number of 1,700,000, are distinguished from the rest of the population by their industrious habits, their love of knowledge and their religious tolerance; the latter virtue is often accompanied with genuine piety. Zealous defenders of their country's rights, they resisted Napoleon after the whole of Prussia was subdued. Among the celebrated men born in Silesia, are mentioned Wolff the mathematician, Garve the moralist, and Opitz the founder of modern German poetry. A small portion of Upper Lusatia having been added to the province, it is computed that the number of inhabitants sprung from the Wends is not less than twenty-two or perhaps twenty-four thousand; they retain their ancient Slavonic dialect. The most numerous branch of the Slavonic race is that which forms the rural population of Upper Silesia. Settled at a very early period in the country, their resemblance to the Poles and Moravians is still apparent both in their features and their dialect.^d The Germans call them *Wasser-Polaken* or Poles that inhabit a marshy country;^e their number is upwards of four hundred and fifty thousand. Their language, in common with the Latin, was used in judicial proceedings and in the public acts until the year 1352, when the German was introduced into the different tribunals. Participating little in the advantages of German civilization, and separated from the rest of the Poles, they have not hitherto made much progress in agriculture or the arts. Their cottages proclaim their poverty; they cover themselves with sheep skins, and take journeys during winter on long and light snow-shoes like the Norwegians, the Laplanders and the inhabitants of Carniola.^f

As to the religion of the inhabitants, Silesia contains about eleven or twelve hundred thousand Lutherans, who reside

^a "Zante."

^b King.

^c Norwans Deutschland, p. 1289.

^d "They constitute the indigenous population of the country, and are

intermediate between the Poles and Moravians, both in their features and dialect."

^e Literally, *Water Poles*.

^f Busching.

chiefly in the districts in the neighbourhood of Breslau, and in the northern part of the province. The number of Catholics is not supposed to be greater than nine hundred thousand; they are mostly settled in Upper Silesia, and on the mountains in the direction of Bohemia. The reformed or Calvinists, the Mennonites, the Hussites or the ancient Moravian brethren, and the Herrnhutters or the modern Moravian brethren, enjoy religious liberty. It cannot be denied that the number of Catholics has diminished, and still continues to diminish; but while the Lutherans account for it by the progress of civilization, and the justice of the Prussian government, which has permitted the full exercise of their religion to many concealed and oppressed protestants, the Catholics attribute it to the successive reductions in the revenues of their regular and secular clergy, revenues which were formerly immense, and which are still very considerable. It is true that out of twenty abbeys, seventy-three monasteries, and eighteen convents for women, six only remain, and the greater part of the land and possessions attached to them, is at present secularized. But, in the first place these measures were not put into execution until the year 1810, and half a century before that period, the Catholics were decreasing in number; besides, the same measures were extended to the Lutheran convents. Not a single church or chapel has been taken from the Catholics, and whilst the Lutherans have only six hundred and twenty-five churches, the Catholics are in possession of one thousand three hundred and seventy-eight, and among these are several, which the Catholics of a former period took by force from the Protestants. Theological instruction is perfectly free, and the Catholic faculty of the university of Breslau is better endowed than the Lutheran. The seminaries that were improved by the Abbé Felbiger, are still under the direction of priests selected from the Jesuits.^a The Catholics have therefore little cause of complaint. It is not denied that the individual, who unites the titles of Bishop of Breslau, Prince of Neisse, and Duke of Grotkau, possesses no longer a hundred and sixty-three castles, and domains of which the rental was estimated at more than two millions of crowns; but his revenue is still great, and he may console himself by reflecting on the first bishops, the founders in the year 966 of the see at Szmogrow, where, according to authentic documents, they taught schools, were married, and lived like burghesses. It was during the eleventh and twelfth centuries, that the bishoprick, the seat of which was transferred to Pitschen in 1041, and to Breslau in 1052, acquired its immense wealth. How happens it then that the poor and oppressed Catholics of Ireland remain faithful to their worship, while the rich and protected Catholics in Silesia are daily decreasing in number?

The Silesian nobility possess three thousand five hundred and four landed estates, valued at a hundred and fifty millions of crowns, since the establishment of a provincial credit bank has lessened the inconvenience to which the proprietors were exposed from the frequent variations in the price of corn. The dukes, and the great and petty barons, retain many prerogatives according to the new organization of the

provincial states. The peasants, who were subject to a sort of vassalage, which was more oppressive in Upper Silesia than in any other part of the country, were declared free in 1810. They may acquire land, but the nobles are entitled to exact from them the *landimies* or a per centage^b on their succession to heritable property, the *robottes* or statute labour,^c and many other services of a like nature. The privileges of the burghesses under the Austrian government were very different in different towns. The inhabitants of Breslau enjoyed immunities almost equal to those in a republic; the citizens of a few immediate towns were the members of a separate and subordinate council; but these distinctions were abolished after the Prussian conquest, and the different burghesses throughout Silesia are more impartially represented.^d

Breslau, the capital of the province, was in early times called Wroclaw by the Silesians.^e The city was founded at a very early period, for it was burnt by the Mongol Tartars in the year 1241. Although it is situated on the Oder, and in a plain, it is five hundred feet^f above the level of the Baltic sea. The country in the neighbourhood is well cultivated, and very fruitful; it is covered with gardens, fruit trees and madder plantations. Public walks and country houses now occupy the site of the former vast and useless fortifications. The streets are for the most part narrow, but the appearance of the town is imposing from the number of its public buildings; the finest are the cathedral, an edifice of Gothic architecture, the spire of St. Elizabeth, the ancient convent of the Augustines, the palace of Schœnborn, the arsenal, the exchange and the mint. Thus Breslau has some claims to its official title of third capital of the monarchy. The population, which in the year 1817 amounted to seventy-eight thousand, including the garrison, exceeds at present eighty-two thousand individuals; they consist of about fifty-eight thousand Protestants, eighteen thousand five hundred Catholics, and five thousand five hundred Jews. One or two literary and philosophical societies,^g fourteen public libraries, of which the one belonging to the university contains one hundred thousand volumes, a museum, an observatory, a school of anatomy, five collections of medals, pictures and antiquities, a botanical garden, and several hospitals, may be mentioned among the public and useful institutions in the town. As the centre of Silesian commerce, it is said that an exportation amounting to seventeen millions of florins, and an importation not much inferior to it, circulated within its walls in 1805; but these calculations are in all probability exaggerated. The great fairs, at which the wool of Silesia and the oxen of the Ukraine and Moldavia are sold, bring together a great many strangers from very distant countries. Breslau carries on a trade in leather, spirits, glass, mirrors, white and printed linen, cloth, silk, tobacco and various other articles;^h it has besides its sugar works, paper mills and alum manufactories.

The other remarkable places in the government of Breslau are not numerous on the Polish side, or on the eastern bank of the Oder. Namslau is the metropolis of a district, which furnishes the best wool in Silesia. Although the

^a Seminaries were instituted by Frederick the Great, (at the head of which was Felbiger, an Augustine monk,) for the proper instruction and discipline of those who were to become teachers.—Adams' Letters on Silesia.—P.

^b "10 per cent."

^c "Corvées," personal service.

^d "The commons (*tiers-état*) consisted formerly of the city of Breslau, which enjoyed immunities under the Austrian government, almost equal to those of a republic, and which voted with the knights, in the provincial diets,

and of a small number of immediate towns (directly subject to the emperor,) which voted in an inferior college; at present the representation of the burghesses is equalized."

^e Wroclaw was pronounced as if it had been written Wratslaw.

^f "480 feet."

^g "Several literary and patriotic societies."

^h In the original it is stated that all these articles are manufactured in Breslau. It may be also observed, that by the trade of a town, in this part of the translation, must be generally understood its manufactures.—P.

population of Oels is not greater than five thousand souls, there are a public library, a museum of natural history, a gymnasium and a theatre in the town. It is the capital of a mediate principality belonging to the dukes of Brunswick, of which the revenue is not more than one hundred and fifty thousand florins. The district of Trebnitz, from its forests of birch trees, has been called by the inhabitants the country of brooms. The baronies of Trachenberg and Militsch are fruitful and well cultivated, but a considerable portion of the land is covered with marshes,^a that may be compared to lakes. The country in the neighbourhood of Neuschloss is planted with vineyards. The small town of Wohlau is situated in a marshy district, and its inhabitants are mostly employed in manufacturing damask.

The government has been enlarged on the German side by the addition of that of Reichenbach, and several places worthy of notice are situated in that part of the country. Brieg on the Oder is about five hundred feet^b above the level of the sea; though still fortified, it is not supposed to be tenable in the event of a siege. The chief wealth of its ten thousand inhabitants consists in their linen manufactures. The streets are straight, the neighbouring country is agreeable, and the principal public buildings are a college with a good library, several hospitals, and a lunatic asylum. The inhabitants of the principality met formerly every year at a feast given by their dukes under the shade of a lofty and ancient oak in the neighbourhood of Scheidelwitz. A colony of Bohemian Hussites in Strehlen and three neighbouring villages, speak their ancient dialect, and adhere to their evangelical worship, which preceded the reformation of Luther. The small town of Ohlau is situated on a river of the same name; the inhabitants are industrious and wealthy; they carry on a trade in tobacco, cloth and paper.

Schweidnitz, the principal town in the mountainous districts, is a place of considerable trade, and contains a population of ten thousand souls. It was formerly a strong fortress, but its fortifications were levelled with the ground by order of Napoleon in 1807. It has since that period gained in industry more than what it lost in military importance. It is sometimes called the second capital of Silesia, but it is not a great many years since it contained only six thousand inhabitants. The town is watered by the Weistritz, which throws itself into the Oder; its streets are broad, and some of the squares are large, and adorned with well built houses. The townhouse and the Catholic church, of which the steeple is the highest in Silesia, are the finest public buildings. The situation of Schweidnitz, in the middle of a fertile country, is favourable for its commerce, which consists chiefly in grain, cattle, wool, tobacco, cloth, leather and paper. The town boasts of having given birth to Mary Cunitz, one of the most celebrated women of the seventeenth century; she studied the exact sciences with success, and published in 1645, under the title of *Urania propitia*, astronomical tables which have been reprinted several times since that period.

In descending towards the Katzbach, we meet with no town of any importance, until we arrive at Liegnitz. It is situated on the banks of that small river, which at the distance of some leagues onwards unites with the Oder.

It is unnecessary to examine minutely whether Liegnitz,

of which the Latin name is *Lignicium*, was founded by the *Ligii*, *Lugii* or *Logiones*,^c a people of ancient Germany, mentioned by Tacitus.^d Such an opinion is indeed highly improbable, for it is well known that the *Ligii* never built any towns. But it is urged in proof of the ancient origin of Liegnitz, that a few urns and other objects, apparently of a very remote antiquity, have been at different times discovered in the neighbourhood. These monuments however are by no means uncommon in many parts of Silesia, and although there be some doubt as to the purposes for which they were deposited, it is certain that they do not always indicate the sites of ancient towns. It is more likely that they were the remains of tombs, for the ancient inhabitants paid great respect to the dead, and like the Romans and other nations of ancient Europe, burned the body and preserved the ashes. It is known besides that Liegnitz, a town at present of nearly 9600 inhabitants, was only a village before Boleslaus fortified and encompassed it with walls in the year 1175.^e Its castle is said to be one of the finest in Silesia; trees grow on its ramparts, public walks have been made in the vicinity, and the adjoining country is fruitful and well wooded. The large square, the townhouse, the cathedral, founded by Wenceslaus in 1348, and the cloth magazine, in which a fine collection of ancient armour is preserved, are admired by strangers. The cloth manufactories are more important than any others in the town. The industrious gardeners in the vicinity have created a lucrative branch of trade; it is said that they receive annually for their fruit and vegetables, (a great part of which is exported,) a sum little less than 100,000 *reichsthalers* or £15,416.^f

The road between Liegnitz and Glogau crosses the field of battle on which the Austrians were defeated by Frederick the Great in 1760. The latter town, which was taken by the French in 1807, is an important fortress; it is called Great Glogau by the Silesians, to distinguish it from a small town of the same name in Upper Silesia. The town is on the whole well built, although neither its churches nor other public buildings are in any way remarkable. It is watered by the Oder, and situated in the midst of a fertile plain. The industry of the inhabitants secures them against the hardships of poverty; they have been improved by the blessings of peace, and the population is at present upwards of eleven thousand souls. Grünberg, the last town of any importance towards the northern extremity of Silesia, is surrounded by vineyards, the grapes of which, though plentiful, are of an inferior quality. It contains a population of at least eight thousand souls. The small and picturesque town of Sagan is built near the confluence of the Bober and the Queis; its population amounts to five thousand souls; it has different manufactories, and among others, one of porcelain. Buntzlau, which contains 5000 souls, is likewise situated on the banks of the Bober, but at a greater distance from its junction with the Queis, and near the eastern declivity of the Giants' mountains. It possesses a national school and a royal hospital;^g the chief trade of the place has consisted for a long period in stone and earthenware.^h Hirschberg, another town in the same part of the country, is only remarkable for its cloth manufactories; it contains 6500 inhabitants. Lauban or Luban is a town

^a "Etangs," ponds.

^b "492 feet."

^c *Lygii*, Tac.

^d De Moribus Germanorum, § 43. Annals, Book XII. chap. xxix.

^e Zeiler, Topographia Silesia, p. 158.

^f "It is said that they annually export vegetables to the amount of 100,000 rix-dollars (*reichsthalers*) or 370,000 francs."

^g "Hospice royal d'orphelins," royal orphan-house.

^h "— in the manufacture of brown pottery."

nearly of the same population, and it carries on the same manufactures. Muska or Muskau on the Neisse is less important from the number of its inhabitants, which is not more than 1500, than from its alum works and different manufactories. It is perhaps one of the smallest towns in Europe, in which there are a large library and a gallery of paintings.^a Gœrlitz or Gœrtzlitz is situated on the banks of the same river, and contains about nine thousand inhabitants. The cloth manufactured at Gœrlitz was supposed to be finer than any in Silesia.^b The cathedral is worthy of notice on account of its organ, and a chapel cut in the rock, from which a bell is appended of very large dimensions. The museum belonging to a scientific society has been considered valuable, but the neighbourhood of the town is most likely to gratify strangers.

Mount Landserone, of which the name signifies the *crown of the country*, is not more than a mile and a half to the west of Gœrlitz. The view from it in clear weather extends over a horizon of seventy miles.^c One may observe from it the different thermal and medicinal springs to which invalids repair from every part of Silesia. On one side are the celebrated baths of Lieberverda, and at a greater distance the ferruginous springs of Flinsberg; on the left is the village of Marckersdorf, near which Marshal Duroc was killed on the 23d of May, 1813, at the battle of Reichenbach, by the same cannon ball that destroyed General Kirgener, and wounded mortally General Bruyere. Napoleon gave a considerable sum to the curate of the village to lay out in erecting a monument to the memory of the Marshal, but Prince Reppin applied the money to a different purpose.

Having thus given a short account of the province of Silesia, it remains for us to describe another which is still more important; it is the centre of a state that during a century has had a considerable share in the events that have agitated Europe; in short, the capital of all the Prussian dominions is situated in the middle of this province. Brandenburg is formed by a part of the old Mark^d of the same name, which was so called from the town of Brandenburg, its capital; by part of the circles of Wittemberg and Meissen; by the principality of Querfurt; and lastly, by a small portion of Silesia. It is bounded on the south-east by the last province, on the east by the grand duchy of Posen, on the north by Pomerania and the grand duchy of Mecklenburg, on the west by the province of Saxony, from which it is separated by the Elbe, and on the south-west by the principality of Anhalt-Dessau. Its greatest extent is about sixty leagues from north to south, and about fifty-five from west to east; its superficial extent is not less than 2080 square leagues, or 13,000 square miles.^e The inhabitants amount to 1,335,160, and they are composed of Germans, Swiss and the descendants of French emigrants. The population is distributed in 141 towns, 21 burghs^f and 3241 villages. The number of inhabitants for every square league is not more than 642, or 107 for every square mile. The province therefore, in proportion to its size, is much less

populous than Silesia, which for every square league contains 739 inhabitants.

The ancient people that inhabited Brandenburg, were, in the time of Tacitus, the Lombards (*Longobardi*), the Burgundians (*Burgundiones*), the Semnons (*Semnonnes*), who styled themselves the bravest and noblest of the Suevi, and lastly the Guttons (*Guttones*), who formed part of the Vandals. These people, who were probably driven from their possessions by the *Venedi* or Wends about the end of the fourth, or beginning of the fifth century, invaded different provinces of the Roman Empire, and the Wends occupied the country which now forms the province of Brandenburg. They were soon subdivided into different small tribes, according to the portions of the country which they inhabited; thus mention is made of the *Lutitzi*, the *Wilzi*, the *Walutabi*, the *Havelli*, and others.

Albert surnamed the Bear, took from these people the town of Brandenburg in 1133, and received in 1150 from the emperor Conrad the Third, the title of elector and margrave. The Mark of Brandenburg was then almost covered with marshes and forests; the prince undertook to clear the land; he built towns which he peopled with a numerous colony of Germans, who had settled in Holland, but were obliged in consequence of an inundation to quit that country. He re-peopled also several parts of Brandenburg, which the devastations committed by the Swedes and Danes had rendered desert. Christianity was spread and established in the country during the reign of the same prince; he built churches, founded monasteries, endowed colleges, and laboured to civilize and enlighten his barbarous subjects. Albert was indeed the true founder of the margraviate of Brandenburg, for before his time the different margraves were appointed during life by the emperors, and he was the first for whom it was erected into a fief. The principality passed through several branches of his family, which became successively extinct, and at last fell into the hands of Sigismund king of Hungary. Not long afterwards Sigismund was elected emperor by the interest and good offices of Frederick, count of Hohenzollern and burgrave of Nuremberg. But the emperor being lavish of his treasures, and despising economy, a virtue not less useful to sovereigns than to private persons, borrowed considerable sums from Frederick, for which he mortgaged the new Mark and the greater portion of Brandenburg.^g Compelled anew to borrow money from the burgrave of Nuremberg, he ceded to him in 1411, the state of Brandenburg, as an hereditary fief, with the privileges of the electoral dignity, for the sum of 150,000 gold florins, which together with what he had previously borrowed, made the whole of the purchase money amount to 400,000 gold florins,^h an immense sum at the time in which it was given, and from which some notion may be formed of the wealth, enterprise and economy of Frederick. If Sigismund maintained himself on the imperial throne, it was owing to the valour and prudence of Frederick, and the influence which the same able prince ac-

^a "It possesses a library and a gallery of paintings."

^b In the original it is simply "— noted for its woollen manufactures." Gœrlitz is in that part of Lusatia, which has been recently annexed to Silesia.—P.

^c "25 leagues."

^d "L'ancienne Marche"—properly, the former margraviate. The Old Mark was one of the five Marks into which the margraviate was divided.—P.

^e The leagues only are given in the original; the miles by the translator.

^f The words in the original, translated towns and burghs, are *villes* and *bourgs*, corresponding to *stædtie* and *markt-stecken*, in Hassel's *Statisticks*, which would be more exactly rendered *cities* and *market towns*.—P.

^g The Emperor Sigismund first sold the New Mark to the Teutonic Knights, and afterwards the margraviate for 400,000 ducats, to Frederick, burgrave of Nuremberg. The New Mark was redeemed by Frederick II. son of the burgrave. See *Memoires de Brandebourg*, p. 9—12. edit. 1762.—P.

^h Buchholz, t. II. p. 57.

quired in the Germanic confederacy. He was the chief of that electoral family, from which have sprung several princes not inferior to him in decision, and possessing the same facility in contriving resources, of which he himself gave so many proofs; in a word, he was the ancestor of Frederick the Great, whose valour and great qualities are so well known as to render any mention of them unnecessary.

Having thus explained the origin of the principality of Brandenburg, which together with Pomerania, forms at present one of the seven great military divisions of Prussia, comprehends two governments, of which the capitals are Potsdam and Frankfort, and is subdivided into thirty-two circles, we shall make some remarks on the nature of the soil and climate, and the principal productions.

The land in Brandenburg is level and in general sandy. Its inclination is so inconsiderable that a great many marshes and small lakes are formed by the inundations of rivers. The Prussian government has been thus enabled from the nature of the country to form a number of canals, which by opening communications between the rivers, facilitate inland commerce. Thus the Spree is united to the Oder by the canal of Frederick William, and the Havel communicates with the same river by the canal of Fienow. Besides these important canals, several others may be mentioned, as those of the Oder, Fehrbelin, Storkow, Ruppın and Templin, so called from the different towns through which they pass, or from the principal rivers by which their waters are supplied.

It is unnecessary to enumerate all the lakes, that are situated in the country; it may be sufficient to mention some of the most important. The Schwielung near Beeskow is about six miles in length; the Spree passes through it. The Scharmützel is upwards of three miles in length; it is the largest of any in the neighbourhood of Storkow. The Soldin and the Müggel are situated near the burgh of Cœpnick, and the Beetz and the Breitling are not far from the town of Brandenburg. The Werbelin near Joachimsthal, is upwards of a league in length, and the lake of Ruppın is more than a league and a half.

The sandy soil of Brandenburg is not unfavourable to vegetation. The country abounds in wood, but the forests resemble those in the north. The most common trees are the fir and the pine, together with the oak, the beech and the ash. A great portion of the timber is exported or used in building ships.

The quantity of corn raised in the country, is not very great; the soil is unproductive, and more is effected by art than by nature. The husbandmen are industrious, and since the encouragement given to agriculture by Frederick the Great, uncultivated lands have been covered with harvests, thick forests changed into rich meadows, many unwholesome marshes drained, and the land throughout the province has risen in value. The products of the soil are hemp, flax, tobacco, hops, grain and several plants used for dyeing in the different manufactories. The finest flax and hemp, and the best millet and buckwheat in the province, are raised on the lands in the neighbourhood of Priegnitz, Bezekow and Teltow. Different vegetables thrive in most places, and one sort, a species of small turnip introduced by the French emigrants that fled from the persecution occasioned by the revocation of the edict of Nantes, has thriven so well, that it is now an article of considerable exportation. The beet, another very valuable plant, is cultivated in the

neighbourhood of Berlin. It was in Prussia that the experiments of Margraaf concerning the extraction of sugar from the beet, were first put into practice on a great scale. To obtain sugar from that plant, several works were erected in the neighbourhood of Berlin, long before the process was generally known in France; and although commercial transactions are now facilitated by the communications that have been opened during peace, although the prejudices of many against this useful discovery have not been removed, the making of sugar from the beet has become an important branch of industry both in Prussia and in France.

An incorrect notion of the fruitfulness of the province might perhaps be inferred from what has been stated concerning its production. It is necessary therefore to observe that the produce of Brandenburg is insufficient for the consumption of its inhabitants; a great part, it is true, is consumed in the capital, which, according to the calculations of statistical writers, absorbs a third part, while Potsdam absorbs a fifth of the whole produce.^a The vine is by no means common in Brandenburg; it was unknown in the twelfth century, but early in the following century some plants were brought from Pomerania, and in 1285, the wine of Stendal was sold in different parts of the province, and exported into different countries in the north. At a later period, when commercial intercourse was extended, these wines were found to be much inferior to others brought from Germany and France. Some of the vineyards have been destroyed by severe winters, and others by the devastations committed in the seven years' war. Their culture has been gradually given up, and it is believed in most instances not to indemnify the labour bestowed on it. The few vineyards that are observed at present, are situated in the neighbourhood of the principal towns, as Berlin, Potsdam and Brandenburg.

Many oxen are not bred in the province, and all of them are of a small size; most of those with which the towns are supplied, are imported from Podolia. The number of sheep has rapidly increased since the attention of agriculturists has been directed to the improvement of wool. It is probable indeed that there are as many sheep in Brandenburg as in Silesia, but it is certain that the wool is not nearly so valuable. The horses are small, and not of a good kind. The same wild animals are observed in the forests, as those which have been mentioned in the account of Silesia.

The bombyx or silk worm succeeds better in Brandenburg than in any other Prussian province. The quantity of silk derived from it is very considerable, and thus a new trade has been created, for which the Prussians are indebted to the enlightened views of the great Frederick. The numerous heaths and the culture of buckwheat, which has become very common, have facilitated the rearing of bees, and enabled the country people to improve a branch of rural industry for which the province is admirably adapted.

The fish that abound in the rivers afford the means of subsistence to many of the inhabitants. The Elbe is perhaps an exception to the general rule, but the lakes, the Spree and almost all the other rivers contain a great many fish; some of them are of an excellent quality; indeed there are several kinds in the Spree, that are so much prized as to form a branch of lucrative exportation. The large *muræna* or the *tendar*, as it is called in the country, is one of this description.

^a In the original, not of the produce, but of the consumption.—P.

The manufactures in Brandenburg are numerous and important. They consist of linens, cottons, silks, cloth and woollen stuffs, porcelain, glass, tobacco and many others which shall be mentioned in the account of the towns that derive from them a part of their wealth. The useful metals are worked in the province, and no small portion of its trade consists in cast iron, fire-arms, different iron utensils, steel ornaments, wire, gold and silver lace.^a

The mineral productions in Brandenburg are not valuable; it is not indeed to be expected that there can be many minerals in so low and flat a country. The greater part of the land is what geologists term the secondary formation. Aluminous schistus is very common in many places, and it is used in the different alum works. One of the largest schistus rocks that is worked, is situated in the neighbourhood of Freyenwald; it is mixed with sulphur and bitumen, and is said to rest on sand. Iron, or rather that variety which is called hydrate of iron, is the most valuable of the metals; it abounds in many parts of the province, and it has given rise to a branch of industry, which is daily becoming more important. Beds of coal have been discovered after repeated and careful observations, and it is by means of that fuel that the iron ore has been rendered useful, and that founderies and iron works have been erected. The best stone for building is found in the neighbourhood of Rudersdorf and Rothemburg; it is obtained from that sort of calcareous rock, which is known in Germany by the name of *muschel-kalk*, and which by calcination may be made into an excellent lime. Extensive deposits of chalk are observed in the neighbourhood of Prentzlow, and in all the northern part of the province. The gypsum quarries are chiefly confined to the vicinity of Speremberg on the frontier of Saxony; most of them are abundant, and furnish plaster of a very good quality. A sort of clay from which earthen wares are made, is found in different districts. Lastly, it may be readily supposed that peats are very common in a country in which there are so many marshy plains. The fuel thus obtained, is used not only for domestic purposes, but in different manufactories.

The climate of Brandenburg is modified by its low situation, and the lakes which cover its surface. The atmosphere, though mild, is humid and subject to frequent variations in temperature. As the country is not sheltered by any mountainous chains, except those in Bohemia, Saxony and Silesia, which are situated at a great distance, it is often exposed to violent storms from the north and the east. It may be compared from its latitude to northern regions; during severe winters, Fahrenheit's thermometer descends below zero;^b in summer it rises to eighty or eighty-five degrees.^c

It has been already stated that the population of Brandenburg is made up of German, Swiss and French inhabitants. But the national character, or that by which the people have been generally distinguished, is different either from the German, the Swiss or the French. There is a certain gaiety or sprightliness among the upper classes, which is confined to them; the people that form the mass of the nation are grave, pensive and taciturn. Many of the Brandenburgers have a taste for the arts and sciences, and education is perhaps more diffused amongst them than any other nation in Europe. They are religious and tolerant; the greater number are Protestants, and the predominant

sects are the Calvinistic and Lutheran; the number of Catholics is proportionally much less than in Silesia.

That enlightened spirit, which is so widely diffused, contributed to exalt the patriotism of the inhabitants, at the period when Europe, worn out by continued contests, leagued with such earnestness against the power that had dictated its laws for twenty years; in 1812, Prussia, ill provided with men and money, rose in mass, and formed an army of 110,000 combatants; Brandenburg furnished readily its contingent, and the inhabitants of Berlin resolved to resist obstinately a division of the French army that marched against their capital.

The German spoken in Brandenburg has been remarked for its purity; but it is equally true that the use of the French language is very common; men of letters, and every individual in the higher classes of society, speak and write it correctly. The example of Frederick the Second made the French fashionable; it is well known how purely and correctly he spoke it, and his compositions, both in prose and verse, prove his intimate knowledge with that language.

To complete the account of the province, it is necessary to mention some of the different towns. Of those that are situated between the Oder and the Warta, or in that part of Brandenburg which borders on the grand duchy of Posen, Zullichau, the largest, contains hardly 5500 inhabitants; the adjacent country is fruitful and well cultivated, but the wealth of the town depends chiefly on its woollen and linen manufactures, in which a trade is carried on with Poland, Germany and even Italy. The field of battle, where the Prussians were defeated by the Russians in 1759, is at no great distance from Zullichau.^d A large and flourishing town to the north-west of the former requires a more minute description. Frankfort on the Oder was formerly included among the imperial cities, and possessing that title, it enjoyed the same privileges and immunities as were granted to those which assumed the more ostentatious title of free towns. It is the metropolis of a circle, it contains 16,000 inhabitants, and it is reckoned to be the seventh city in Brandenburg. The streets are broad and straight, three suburbs are attached to it, there are several useful establishments, some remarkable monuments and a bridge of two hundred and thirty feet in length. An university, which was founded in 1506, acquired a high reputation in Germany; it has been transferred to Breslau, but Frankfort still possesses a gymnasium, a literary and scientific society, a botanical garden, a fine library, several public schools and different charitable institutions. It was in Frankfort that Leopold, duke of Brunswick, perished in 1785, the victim of an act of heroism and devotedness, of which princes have left but few examples. Painters and statuaries have represented the disaster occasioned by the inundation of the Oder, in which the duke of Brunswick lost his life in attempting to save others. So noble an action excited general admiration in the last century, and the town perpetuated the recollection of it by a monument which the inhabitants erected on the very place that the accident happened. Frankfort is a town of considerable trade; three fairs are held in it every year, and on these occasions there is a great sale not only of linens and silks, the staple manufactures of the place, but of furs, morocco leather, hosiery, tobacco and flax seed, the last of which is raised in the neighbourhood and exported to Silesia and Bohemia. Its commerce has been extended

^a "Arms, iron castings and ornaments, needles, and gold, silver, iron and brass wire."

^b "12° or 18°." Reaumur?

^c "25° or 26°." Reaumur?

^d Near Palzig.

and improved by means of canals, which have opened an easy communication with the Berlin and the Baltic. Frankfort was formerly considered a strong town; it was taken by the French on the 28th of October, 1806

The canal of Muhlrose, of which the course is about fifteen miles, is situated between Frankfort and Cottbus; it joins the Oder to the Spree, and bears the name of a small town which it waters. Furstenberg on the Oder lies to the south of Frankfort; it was almost entirely destroyed by a conflagration on the 26th of May, 1807. Beeskow is built opposite to Furstenberg,^a on the banks of the Spree; it contains 3000 inhabitants, several cloth and linen manufactories, and an ancient castle, in which a court of justice is at present held. Lubben or Lubio, a town possessing the same sort of trade, and of nearly the same number of inhabitants, is situated on an island formed by the Berste and the Spree. Some vineyards have been planted in the neighbourhood of Cottbus; they are of little value, and hardly suffice for the consumption of its 6500 inhabitants. The manufactures consist principally of cloth and linen. Frequent allusion is made to this ancient city in the writings of the old chroniclers, under the name of Kotwick. It has belonged to Prussia since the year 1461; but Napoleon, by the treaty of Tilsit, ceded it along with part of its territory to the king of Saxony. Few towns have suffered more from fires; it was burnt and rebuilt in the years 1468, 1470, 1597, 1600 and 1671. Its position is not favourable for commerce, for the Spree, on the right bank of which it is built, is only navigable at the distance of some leagues below it. The name of Spremberg indicates its situation on the banks of the Spree, and at the foot of a mountain; it is a place of but little importance; its population is not above 2000 souls. The small town of Dobrilugk is situated beyond the eastern declivities of the mountain just mentioned, on the right bank of the Dober. It contains only a thousand souls, but there are a church, a castle, a cloth manufactory and several gin distilleries, from which it may be inferred that the people find that trade more profitable than others, carried on by the inhabitants of the neighbouring towns.

That part of Brandenburg which shall next be described, is in many places humid and marshy; the most of the towns are insignificant, but some branch of trade is carried on in each of them. Guben, Crossen, Luckau, Golssen and Jüterbogk, Baruth, which forms a part of a barony belonging to the count of Solms-Sonnenwald, Mittenwald and Belzig, the last of which was formerly defended by a castle, and Belitz with its ancient ramparts, are all of them manufacturing towns, and the only towns that can be enumerated in the southern part of Brandenburg, between its western limits and the left bank of the Spree, from the frontier of the kingdom of Saxony to Potsdam.

That town, which has been considered one of the finest in Brandenburg, is situated at the confluence of the Ruthe and the Havel, on an island of about twelve miles in circumference; some villages have been built on the same island, which is formed by the two rivers, a canal and the lakes of Schwielow and Weise. The houses are adorned with fine fronts, the streets are broad, straight and well paved, and the public squares and several edifices that shall be mentioned, render it well adapted for a royal residence.

^a Properly, to the westward of Furstenberg. Furstenberg is 13 miles S. and Beeskow 16 miles S. W. of Frankfort.—P.

^b "Six gates"—4 gates towards the land, and 4 towards the Havel. *Ed. Encyc.—P.*

^c This is not the statement in the original, nor does it agree with the

The town is supposed to be very ancient, but the traditions concerning its origin are uncertain. It was known in the tenth century by the name of *Postdepimi*, apparently a Vandal word, which was changed at a later period into *Postzein*; but at that time it was only a burgh. It was raised to the rank of a city during the fourteenth century, although it hardly deserved that distinction before Frederick William began to embellish it in 1720. To fit it for his residence, he built the fronts of the houses at his own expense, and the town soon assumed the appearance of a number of palaces. It must be confessed however that the interior of the houses corresponds rarely with their magnificent exterior; the apartments are ill arranged, and what seems to be the abode of a courtier, is often inadequate for the comfort of a moderate burgess. The city, which exhibits from one end to the other, a series of decorations, has long been called the finest barrack in Prussia. The garrison indeed is always numerous, and it occasions a degree of activity that cannot be attributed to its commerce or industry, although there are different manufactories, and although the population amounts to sixteen thousand individuals. Potsdam is encompassed with walls and palisades; there are seven gates,^b and the finest is the gate of Brandenburg, seven bridges, one of which is made of iron, and seven churches, of which one is set apart for the Catholics. It is divided into three parts, the old town, the new town and Frederickstadt. The most remarkable edifices are situated in the old town. The castle is worthy of notice; its roof is covered with copper and gilt ornaments, and the interior of the building is decorated with the finest Silesian marble. An obelisk of red marble from the same province is erected in the Old Market-place; it is seventy-five feet in height, and it rests on a pedestal of white Italian marble; on the base of the pedestal are the busts of the great elector and his three successors.^c The townhouse, which is built on the Old Market-place, is not unlike the one at Amsterdam. Two churches of a noble architecture are situated in the same quarter; one of them is the church of St. Nicholas, and its portal is the same as that of Sta. Maria Maggiore at Rome; the other is the church of the garrison, which was completed in 1739; it is worthy of being visited, because in its vaults are deposited the ashes of Frederick the First, and Frederick the Second. The latter died at Potsdam on the 17th of August, 1786; his tomb, remarkable for its simplicity, was visited by Napoleon in 1806, who obtained there the sword of that great man. Most of the monuments at Potsdam were more or less mutilated during the campaign of 1806, but they have been partly repaired by government since the peace of 1815. The New Town contains nothing remarkable, except the French church, which was built after the model of the Pantheon at Rome, and the Military Orphan Hospital, a massive building of three stories, not so much to be admired for its architecture, as for the purpose to which it is applied. The sons of soldiers only are received into the hospital, and it contains more than a thousand inmates. It is an excellent regulation, and one that ought to be adopted in Catholic countries, that the religious opinions of parents do not exclude their children from the benefits of the institution; the sons of sectarians of every denomination may be admitted; nothing like proselytism is

common descriptions—"on y remarque les bustes, &c." There is a statue on each corner of the pedestal, and on the sides of the obelisk or pyramid are the busts of the Elector Frederick William and his three successors. *Beschreib. von Berlin und Potsdam. II. Band, p. 873, 1779.—P.*

ever attempted. Another institution of the same nature was founded in 1726 for the orphan daughters of soldiers. The castle of *Sans Souci*,^a and the New and the Marble palaces are situated near the quarter of Frederickstadt. The gardens attached to these buildings, the pictures contained in them, the fine view from the castle of Sans Souci, the bed-chamber where Frederick the Great died, in which the original furniture is carefully preserved, are objects of attraction to travellers, and serve to recall the great associations connected with them.

If the environs of Potsdam are agreeable and picturesque, the neighbourhood of Berlin is dismal and monotonous. That city, which was founded in 1163, now comprehends five towns and four suburbs. It is situated in the middle of a sandy plain, of which the cheerless prospect forms a striking contrast with the activity that prevails within the walls. There is nothing in Berlin of the solemn pomp that is observable at Potsdam, and it is without doubt the best built town in Germany; not that the buildings display great taste or much of elegant and pure architecture, on the contrary, it is easy to detect that German style which is the reverse of classic beauty; but the whole is imposing, the streets are broad and straight, and many monuments erected by Frederick the Second remain, who laid out much of his money in embellishing the capital. We might have too much to say, if we attempted to enter into any minute detail concerning Berlin. It is watered by the Spree, which at the distance of some leagues below, throws itself into the Havel: It contains two hundred and twenty-four streets, of which the finest are Frederick and William Streets, seven thousand three hundred and fifteen houses, and one hundred and ninety-two thousand inhabitants. Three thousand Jews have their synagogue. The French colony, that was compelled to fly from the fanatic persecution under Louis the Fourteenth, amounts at present to nearly 8000 souls; they are in possession of five churches.

The royal palace is the finest edifice in Berlin, and if it were uniform, it might be a model in its style of architecture. But as it was built during the reigns of several princes, the effect of the whole has necessarily been injured, although the plans and the designs of the celebrated Schluter have been adhered to.^b The proportions are on a great scale; the building consists of three stories, the height is a hundred and five feet, the length of the principal front, four hundred and forty-five, and the breadth, two hundred and sixty-five.^c The inside of this royal residence corresponds with the exterior. The finest apartments are in the second story; it contains a large library, a rich collection of medals and antiques, a museum of natural history, and a gallery of more than three hundred valuable paintings, exclusively of the Giustiniani collection, which was brought from Rome.

The arsenal is the finest building after the palace; it is supposed to be the largest in Europe, and it is certain that it can contain arms and munitions for an army of two hundred thousand men. Other edifices and palaces have been

erected in Berlin, but if an account of them were to be given, it might be necessary to omit what appears to be of greater importance. Many commodious buildings have been raised for the amusement of the wealthier classes. The concert room can contain more than a thousand auditors; the theatre is built after a fine plan, and holds upwards of two thousand spectators; lastly, the Italian opera is much larger than those in many other European capitals, for there is room in it for five thousand persons; some of the boxes are reserved for strangers.^d

The church of Saint Hedwige, one of the twenty-seven^e in Berlin, is built after the model of the Pantheon. The church of Saint Mary has stood since the thirteenth century; its Gothic tower is two hundred and seventy-five feet in height. Among the others are the ancient church of St. Nicholas, the cathedral and the church of the garrison. The first of these was built before the year 1200; it is adorned with a number of Gothic ornaments, and within it is the tomb of the celebrated Puffendorf. It is in the vaults of the cathedral that the members of the royal family are interred. The church of the garrison was completed during the reign of Frederick William in 1722, and the nave of the same building was covered with many banners and trophies gained by the Prussians; but in 1806, after the French had entered Berlin, all of them were removed to Paris, and during eight years they were suspended in the church of the Invalids. They were destroyed at the first entrance of the allies, in order that their armies might not carry off the fruits of a conquest which was dearly purchased by the French. Such are the principal churches in Berlin; our limits prevent us from mentioning the others, although some of them are not inferior to any in point of architecture.

William's square is the finest in Berlin, and the number of squares is not less than twenty-two; it is adorned with the statues of five generals, who rendered themselves illustrious in the seven years' war.^f The square in front of the castle^g is larger, but in other respects much inferior to it; a statue of the Prince of Dessau has been erected there, a general who laboured more successfully than any other in organizing the Prussian infantry. It is true that the Prussian government has seldom been negligent in rewarding individual merit by monuments that perpetuate the remembrance of it. The bronze equestrian statue of Frederick William, the work of Schluter, has been placed on the great bridge; the size is colossal, and the weight is said to be upwards of one hundred and fifty tons.^h

The gate of Brandenburg is the principal entrance into Berlin, but there are not fewer than sixteen others, yet all of them are comparatively insignificant.ⁱ The same gate resembles in form and architecture the Propylæum at Athens. A chariot made of copper, and drawn by four horses,^k which was taken away by the French during the first Prussian campaign, has been replaced on its summit. Although removed to Paris, it never appeared on any of the monuments in that city. The chariot, which was ex-

^a "Chateau de Sans-Souci," (Germ. *Schloss Sanssouci*)—more generally called in English, the palace of Sans-Souci. The terms, *chateau*, Fr. and *schloss*, Germ. are not only applied to fortified castles, but to palaces and country residences. What is here called the New Palace (*Palais-Neuf*) is called *Neu-Schloss*, in German.—P.

^b See Beschreibung des Königlichen Schlosses zu Berlin, 1803.

^c "More than 31 metres in height; length of the principal front 135 metres; breadth 67." Length 430 Rhinland feet; width 276; height 101. *Ed. Encyc.* By comparison of these two statements, length 445 Eng. feet, breadth 285, height 104 nearly.—P.

^d Reichard's Traveller's Guide. Schmist, Wegweiser für Fremde und Einheimische durch Berlin, Potsdam.

^e 33 churches; 12 Lutheran, 8 common to the Lutherans and Calvinists, 6 French Calvinist, 2 Catholic, 1 Moravian, and 4 belonging to other sectaries. *Ed. Encyc.*—P.

^f "—of the four great officers who distinguished themselves in the seven years' war, viz. Schwerin, Seidlitz, Keith and Winterfeld." *Ed. Encyc.*—P.

^g The square in front of the royal palace, Germ. *Schloss-Platz*.

^h "3000 quintals."

ⁱ "Of the sixteen entrances (15 gates. *Ed. Encyc.*) into Berlin, the gate of Brandenburg is unquestionably the finest."

^k Victory in a *quadriga*.

cuted by a brasier at Berlin, is rather a monument of patience than of art; it is not the work of the chisel, but merely a relief on plates of copper.

Having thus enumerated the ornaments and edifices in the Prussian capital, it may be necessary to mention some of its useful establishments. It contains a lunatic asylum and several hospitals, the most ancient of which, or that of the Holy Spirit, was founded in the thirteenth century. The royal hospital of Invalids was finished in the year 1748; it is situated beyond the gate of Oranienburg. The soldiers, who are admitted into it, have not only commodious apartments and large gardens, like those in Paris, but also extensive fields, which they only are entitled to cultivate.

The scientific and literary institutions in the metropolis of a state so much enlightened as Prussia, ought not to be passed over in silence. The number of public libraries is not less than twenty-four, and the largest or the royal library contains upwards of a hundred and sixty thousand volumes. The museum of the university is rich in minerals and also in zoological and anatomical preparations; they are placed in a spacious building, which is called the Palace of the University. The academy of sciences possesses a museum of natural history, and a valuable collection of philosophical instruments. Many other valuable collections are attached to different institutions, as the observatory, the college of Joachimsthal, the society of natural history, and the gymnasium of Frederick William and Berlin-Kölln.

The light of knowledge has been diffused by the university, which was established by government in 1810, and the advantages attending it are daily increasing. The number of students that matriculated in 1826 amounted to sixteen hundred and forty-two, and among them were included four hundred foreigners. The theological faculty was attended by four hundred and forty-one students, the juridical by six hundred and forty-one, the philosophical by a hundred and seventy-one, and the medical by three hundred and eighty-nine. The university of Berlin cannot as yet be compared with that of Paris, but it may be remarked that similar institutions are very common in Germany, and indeed it might have appeared unnecessary to many that Berlin should be included in the number of university towns. Government however determined otherwise, and it is to its zeal and powerful assistance that the inhabitants are indebted for an university, which bids fair to rival the most celebrated in Europe.

The royal Academy of Sciences was instituted by Frederick the Great, who requested Leibnitz to frame its laws and statutes. It was divided into different classes, which comprehended the sciences, history and literature. It was rendered illustrious by the labours of Leibnitz and Euler, and it still maintains its high reputation. Different institutions have been established for different branches of knowledge, as the medical and surgical academy, the veterinary school, the military academy, the seminary for the instruction of engineers, the normal school, and the college for the education of youth in the French colony. There are, besides, many private seminaries, Sunday schools and others in which the poor are gratuitously educated. It might be difficult to enumerate all the societies that have been instituted for beneficent purposes, for relieving the indigent,

curing the sick, and ministering to the wants of widows and orphans.

The public walks in Berlin are numerous. The Lustgarten, which is nearly a mile long, and about a hundred yards broad, is adorned with six rows of lofty lime trees; the breadth of the principal alley is upwards of fifty feet.^a The Circle and the Zelte are more frequented than any others in the capital. Those situated beyond the walls on the side of the Brandenburg gate, are the Thiergarten; the park of Charlottenburg, where a mausoleum has been erected to the memory of queen Louisa; the Pickelswerder on a hill, from the summit of which one may observe the Havel, the country in the neighbourhood of Berlin, and Spandau, a town at the distance of six miles to the west, peopled by 6000 inhabitants, and more remarkable on account of its quadrangular fortress, which was taken by the French in 1806, and bombarded by them in 1813, than for its iron works,^b and its linen, silk and cotton manufactures; and lastly, the gardens and mineral springs of Friedrichsbrunnen at no great distance from Berlin.

It is unnecessary to enter into minute statistical details concerning the capital; it may be remarked, however, that its elevation is about a hundred and seventy-five feet^c above the level of the sea, that it is more than nine miles^d in circumference, and that the sum for which the houses and other buildings were insured against fire some years ago, amounted to 45,000,000 of rix-dollars or £6,750,000. Soldiers may be quartered in five thousand nine hundred and twenty-seven houses, and the total number of houses is not more than seven thousand three hundred and fifteen. The rent in 1824, of 41,037 houses, shops, flats and apartments,^e amounted to 3,657,690 Prussian crowns, or about £548,654. Those that were let for a sum not exceeding 30 crowns, were equal in number to 12,015, and those of which the rent varied from 30 to 50,^f amounted to 10,928. The highest rents were not more than 3400 crowns. It ought to have been observed that the Prussian crown is equivalent to three shillings.^g The national guard is composed of two squadrons, a company of carbiniers, eight battalions of infantry, and five non-equipped battalions.

Berlin carries on a considerable trade in jewellery; the ornaments made of cast iron in the same place, are valuable on account of their bright polish and delicate workmanship. Its light but solid carriages are sold in most parts of Prussia, and its porcelain rivals that of Saxony. The porcelain flowers which are still made at the royal manufactory, as ornaments for tables and chimney-pieces, were formerly so much used that the sum obtained for them every year, was greater than 100,000 crowns. But the German taste is now improved, or at all events altered, and the porcelain flowers, notwithstanding their vivid colours and finished reliefs, are no longer fashionable. The silk, cotton and woollen manufactures afford employment to many individuals, and the royal cloth manufactory is not the least important; in short, few branches of industry are wholly neglected, and able workmen are to be found in almost every department.

The Havel, before it reaches Brandenburg, forms at different places large sheets of water about a mile or a mile and a half^h in breadth, and in many of them are verdant

^a "Length 4000 feet; breadth 160 feet; breadth of the principal alley 50 feet."

^b "Manufactory of arms."

^c "50 metres."

^d "3½ leagues"—11 miles. (*Ed. Encyc.*)

^e "41,037 locations," leases.

^f "3 francs 70 centimes."

^g "1500 to 2000 metres."

^h "Rent about 50."

and well wooded islands; the banks of the river furnish many agreeable situations, both in the neighbourhood of Potsdam, and between that town and Brandenburg. The latter place owes its prosperity and wealth to the revocation of the edict of Nantes, a revocation, of which the fatal consequences were long felt in France. The manufactories of cloth, linen and paper hangings, at Brandenburg, were mostly established by the French exiles, and its trade is still flourishing. The number of inhabitants amounts at present to 12,800. This ancient capital of the Mark of Brandenburg, is now the chief town in the circle of West Havelland. The Havel divides it into three parts. The Old Town, which is situated on the right bank of the river, stands on an eminence; it is small and ill built. The New Town on the opposite bank is very different; the streets are broad and straight; part of it is built on an island that is called Venice, probably because all the houses are supported on piles. The college and the cathedral are situated in the New Town. The church of St. Catherine in the Old Town, is remarkable for its antiquity; the other buildings are a large barrack and a military hospital. Among the curiosities that are preserved at Brandenburg, we might mention the library and pictures of Cranach, a celebrated painter and the friend of Luther; he was present at the marriage of the reformer with Catherine Bora, and embraced his religious opinions before the inhabitants of Brandenburg, now wholly protestant, had adopted the Augsburg confession. The hill of Karlung rises above the city on the north-east, and commands an extensive view of the Havel and its lakes, which in the neighbourhood of Brandenburg are generally covered with fishing boats. The fisheries are so productive that they are farmed, and the income derived from them, forms a considerable part of the town's revenues.

The town of Rathenau is situated on the banks of the Havel, and at six leagues to the north-west of Brandenburg. It was built in the year 430, and is now peopled by 4600 inhabitants. A colossal statue of the elector Frederick William is the only ornament worthy of notice. Havelberg is built on an island formed by two branches of the same river; its population is nearly the same as that of Rathenau; it carries on a considerable trade in timber, and many of the boats that sail on the Havel, are built in its dock-yards. The refining of sugar is another branch of industry in which many find employment. The cathedral, by far the finest building in the place, is not inferior to any other in Germany. Perleberg is not so large as the last town; it contains about 3000 inhabitants. It is built in an agreeable situation, and watered by the Stepenitz, a short way below its junction with the Perle. It possesses a large cloth manufactory, but flax and cattle make up its principal trade; the flax grows in abundance throughout the neighbouring country, and the greater part of it is sold at a fair, that is held every year in the town.

There are no other places of any consequence on the western and northern frontiers of Brandenburg, except the small town of Reinsberg. If a person travels to it from Perleberg, he must go out of his way in order not to enter two small districts, which are together hardly two square leagues in superficies, but which form a part of the dutchy

of Mecklenburg-Schwerin. It is difficult to imagine why Prussia omitted in the recent treaties to cede some portion of its frontiers to the neighbouring principality, in order not to have a foreign territory in the midst of its dominions, more particularly as it contains only some insignificant villages, the acquisition of which could have been attended with little difficulty. Reinsberg is watered by the small river Rein, and built on the banks of a lake; its population does not exceed 1500 souls, and its trade depends on its glass and pottery. The rural palace of the late Henry, prince royal of Prussia, is situated in the vicinity; although now suffered to go into decay, its gardens, still remarkable for their luxuriance and the fine views from them, may account in some degree at least, for the attachment that the prince had for a residence, in which his ashes are now deposited, and which was long inhabited by the great Frederick before his accession to the throne.

Gransee is situated five leagues to the south-east of Reinsberg; although its population is greater than that of the last town by nearly a thousand inhabitants, it contains little that is likely to excite attention. New Ruppin, which is somewhat larger, is built on the lake of the same name, and chiefly inhabited by manufacturers and tradesmen. It is the metropolis of a circle, and its population amounts to 4600 souls. Lindow or Lindau is partly peopled by a Swiss colony; its largest building is an Orphan Hospital, an institution that was hardly to be expected in a town of 1300 inhabitants. Fehrbelin is only memorable for the victory, which was gained by the great elector^a over the Swedes in 1675. The small town of Oranienburg or Orangeburgh was for some time the residence of Frederick William, who possessed a country seat in the immediate vicinity. The town was at first called Bœtzow or Botzau, but the name was changed into that which it now bears, shortly after the marriage of the elector with Louisa, princess of Orange. The library of the prince is still preserved in the town, but his ancient castle is changed into a manufactory of sulphuric acid.^b

Bernau owes its trade and commerce to the French colony that fled to it after the revocation of the edict of Nantes. Its old fortifications, which still exist, enabled the inhabitants to defend themselves during the fifteenth century against the followers of John Huss, one of the most zealous precursors of the reformation. But as Bernau as well as the whole province of Brandenburg became protestant under the elector Joachim the Second, about the year 1560, the town served as a place of refuge for the French Calvinists. Many of the inhabitants are affluent, almost all of them industrious; among other articles they carry on a trade in strong beer, but their principal commerce consists in silk and woollen stuffs.^c Three churches and an hospital have been built in the town, although the population is hardly equal to 2300 souls.

Custrin is the first place of any consequence on the south-east of Bernau. It is encompassed by the Oder, and by marshes, which renders it almost impregnable; it was however burnt by the Russians in 1758.^d It has since that period been repaired and improved; formerly dirty and ill built, the streets are now straight and regular. It consists of the old and the new town, and three suburbs that are defended

^a Frederick William.

^b "The country seat (*château*) has been converted into a manufactory of sulphuric acid, and a library (*cabinet de lecture*) in the town is the only useful establishment."¹

^c "Bernau contains several manufactories of silks and different stuffs, and is noted for its breweries."

^d It was burnt by the Russians in 1739 and 1758, but could not be taken by them in either instance.—P.

by a fort, which communicates with the new town by means of a bridge, nearly nine hundred feet^a in length. This bridge is the most remarkable structure in Custring, but it possesses besides an arsenal, an hospital, a house of correction, and two seminaries, one of which is set apart for the Lutherans and the other for the Calvinists. The inhabitants are not fewer than four thousand five hundred, and a great number of them are employed in manufacturing woolen stuffs.

The town of Landsberg, at ten leagues to the east of Custring, is watered by the Warta, and rendered more important from its commerce with Poland and Pomerania than from its population, which amounts, however, to nine thousand inhabitants. It is the last town of any consequence in the eastern part of Brandenburg. The small town of Angermunde is situated near the lower part of the Oder, and on the left bank of that river; it is peopled by two thousand seven hundred inhabitants, many of whom are of French extraction. There are three seminaries, one for Greek and Latin, another for German and a third for French. The town of Schwedt is not far from Angermunde, but nearer the Oder and on the same bank of the river; it contains four thousand three hundred inhabitants, and is defended by an ancient castle. The fine country residence of Monplaisir is situated in the neighbourhood. It might not be worth while to mention the small town of Boitzenburg on the west of Schwedt, were it not to remark that the lakes which encompass it, contain a great number of tortoises, and abound in large trout, that are mostly exported to Berlin.

Prenzlau or Prenzlau is the most northern town in Brandenburg; situated on the lake and river Ucker, peopled by nine thousand three hundred inhabitants, rich from its industry, which consists in manufacturing cloth and linen, in dressing leather, and preparing tobacco, and possessing a considerable trade in grain and cattle, it is one of the most flourishing and best built towns in the province. The public library, which is now valuable, was established by M. d'Arnim. A disastrous combat was fought in its suburbs on the 28th of October, 1806, between the French and the remains of the Prussian army that had escaped from the battle of Jena; in consequence of this second defeat, Prince Hohenlohe, a prince of Mecklenburg-Schwerin, Prince Augustus Ferdinand of Prussia, and several generals, were taken prisoners.

It is only necessary to give some account of Pomerania, to finish the description of the northern part of Prussia. That province is bounded on the north by the Baltic sea, on the west by Mecklenburg and Brandenburg, on the south by the last province, and on the east by Western Prussia. It is not less in superficial extent than five hundred and sixty-six German square miles, or ten thousand one hundred and fifty English square miles.^b The total population amounts to seven hundred thousand seven hundred inhabitants, which gives about sixty-nine individuals for every English square mile.^c It appears, therefore, that the pro-

^a "875 feet."

^b "1450 sq. leagues, 25 to a degree."

^c "483 per sq. league."

^d "nation slave." This country was inhabited in the time of Strabo, Ptolemy and Tacitus, by the Goths, the Rugians and the Heruli, all Germanic tribes of the great Slavonic nation. Encyc. Method. This is the source of the passage in the text, but it is obviously erroneous and contradictory, unless we consider Germanic as merely referring to locality, and Slavonic to origin. But the Goths are generally considered of Teutonic origin. The people who succeeded them belonged undoubtedly to the Slavonic or Wendish race.—P.

vince is less populous than Silesia or Brandenburg. Its name is derived from the Slavonic word Pommarski, which signifies a country in the neighbourhood of the sea.

Pomerania was inhabited in the time of Tacitus by the Goths, the Rugians and the Heruli, all of them different branches of the Slavonic race.^d The inhabitants of the western part, which now forms the territory of Stettin, were called *Sidini*. They left their country during the fifth century, and invaded different provinces of the Roman empire. The Venedi or Wends succeeded them, and founded a kingdom in Pomerania, of which the chiefs were called *Kongur af Vinland*, or kings of the country of the Wends. Their first prince, it is said, was Mistew or Mistevojus.^e The monarchy however was but of short duration. The people that composed it, or the Cassubians and Pomeranians Proper, divided themselves into distinct states under different princes. A sort of trinity, that was admitted into the worship of these ancient inhabitants, was represented by an idol with three heads, to which they gave the name of *Trig-laf*.^f It was not before the eleventh century that they were converted to Christianity by Otho, bishop of Bamberg.

The princes or dukes of Pomerania were first made members of the empire by Frederick the First in 1186. The Margraves of Brandenburg claimed, for a long time, the right of sovereignty over the country, and to assert their claim, made war at different periods against the dukes of Pomerania. But an end was put to these destructive wars, when the princes of the house of Hohenzollern became electors of Brandenburg; for it was stipulated that they should renounce the sovereignty, to which until that period they had vainly pretended. It was also agreed that Pomerania should be ceded to Brandenburg, if the ducal family became extinct. But that treaty was not fulfilled in 1637, after the death of Bogislaus the Fourteenth, the last duke of the ancient Slavo-Wendic race. The whole of Germany was then involved in the thirty years' war; the Swedes made themselves masters of Pomerania, and it was granted to them at the conferences that preceded the treaty of Westphalia, as an indemnity for the expenses of the war, and the sacrifices which they had made for the welfare of Germany. Pomerania was divided, notwithstanding the remonstrances of Frederick William. According to the terms of the peace signed at Osnabruck in 1648, Sweden obtained, under the title of a fief, the island of Rugen and all the country situated between Mecklenburg and the banks of the Oder; the elector lost Stralsund and Stettin, the two most important towns in the duchy. The country from the left bank of the Oder, opposite the last town,^g to the shores of the Baltic, as well as the island of Rugen, was then called Swedish Pomerania.

The destructive war between Charles the Twelfth and Peter the First, was not unfavourable for the elector. A holy alliance formed between the czar and the kings of Poland, Denmark, England and Prussia, availed itself of the exhausted state into which Sweden had fallen from the misfortunes of its king. Peter the First took possession of

^e Hildebrand, Genealogia ducum Pomeraniæ. Rangon, Pomerania diplomatica.

^f Sassi, Disputatio de Pomerania.

^g Such is the language of the original—but Stettin itself is on the left bank of the Oder. It should be, from the right bank. By the treaty of Osnabruck, 1648, Hither Pomerania, extending from the frontiers of Mecklenburg to the Oder, including the river, as well as the towns of Stralsund and Stettin, was ceded to Sweden. Stettin was restored to Brandenburg, together with that part of Hither Pomerania between the Peene and the Oder, by the treaty of Stockholm, 1720.—P.

Stettin, and delivered that important fortress to Frederick William, who had supplied him with large sums of money during the siege. After the death of Charles the Twelfth, Queen Ulrica Eleanora, his sister, being compelled to make peace on any terms, ceded in 1720 to the king of Prussia, Stettin and the country between the Oder and the Peene for two millions of crowns, and that great sum was paid by the prince for a small territory, although the total revenue derived from it was not more than 100,000 crowns, and although he was already master of its most important fortress. Swedish Pomerania, in consequence of this pecuniary arrangement, comprehended merely the island of Rugen and the country between the Baltic sea and the river Peene; the whole of its superficial extent was not greater than 1372 English square miles.^a But that small portion of territory, like a farm which passes from the hands of one proprietor to another, was still destined to change its rulers. The projects formed by Russia in order to consolidate its power in Europe, and to enable it to contend against France, its only formidable rival, were followed in 1805 by the conquest of Swedish Pomerania.^b The whole country, which was formerly called Pomerania, was not made over to Prussia until the last treaties.

The soil of the province, almost entirely formed by accessions from the sea, and alluvial deposits from rivers and streams, is sandy in many places, chiefly near the mouth of the Oder and on the shores of the Baltic. It becomes more argillaceous, in proportion as we remove from the coast, but the declivity is so insensible that the river water accumulates, and forms many lakes, some of which are of considerable extent. Other parts of the surface are covered with marshes, so that the atmosphere is humid and often obscured by fogs. It is certain, however, that the cold and moist climate of Pomerania is not unhealthy. Its position between the fifty-third and fifty-fourth degree of latitude accounts for the length of its days, the longest of which is sixteen hours and a half, and the shortest seven and a half.

A great part of the country is covered with forests and heaths;^c indeed, from what has been already said of it, its want of fertility need not excite surprise. It is only the banks of the rivers and the lakes that can be advantageously cultivated, and the system of agriculture is still more imperfect than in Silesia.^d If the climate of Pomerania is less adapted for the vine than that of Brandenburg, it must be chiefly attributed to the colder temperature of the former province. It appears, however, that the culture of the vine was introduced in the twelfth century, and if the accounts are to be believed, the attempt was not unsuccessful. Otho, Bishop of Bamberg, who is styled in the legends, the apostle of Pomerania, visited the country in 1124, for the purpose of converting the inhabitants; he observed that the art of making hydromel was well understood, but it was thought unbecoming to substitute that liquor instead of wine in the sacrament of the supper. When the same bishop returned in 1128, he brought with him a large cask, filled with young vines, which were planted by his direction, in order that he might be enabled to administer wine to the converts; at that period, laymen as well as ecclesiastics partook of the communion in both kinds. It is owing without doubt to the same cause that the culture of the

vine was introduced with Christianity into different countries. Mœhsen^e makes an important and curious remark on this subject; he affirms that the difficulty of obtaining wine in the north, otherwise than by commerce or an expensive cultivation, gave rise to the custom of communicating in one kind. Thus, says that writer, necessity brought about a sophism by which the most solemn of all the institutions founded by the author of Christianity, was changed.

The rivers in Pomerania abound in fish, and the most valuable are the sturgeon and the salmon. It frequently happens that sturgeons from eight to ten feet in length are taken in the Oder; and it is observed too, that these fish come into the rivers at an earlier period than the salmon.

The forests in the province were at one period frequented by elks and wild oxen;^f but these animals are now very rare, and it has been remarked by the inhabitants in these districts, that they have mostly disappeared^g since the last wars, by which their country was desolated. Excellent timber both for naval and other purposes is obtained from the forests. The ancient Further Pomerania, which extends to the east of the Oder, is noted for its mineral and saline springs; but the water in general is somewhat brackish, or at all events not so fresh as in the other Prussian provinces. The same part of the country is covered with rich pastures, on which numerous herds are reared. The Pomeranian horse is supposed to be of as good a kind as any in Prussia.

The island of Rugen lies opposite to Stralsund, and near the northern extremity of Pomerania; its extent, configuration, and the nature of the soil, may be shortly described. Its greatest length from north to south is not more than thirty miles, its greatest breadth from east to west is about twenty, and the extent of its surface is nearly equal to two hundred and eighty-two.^h Its numerous creeks and bays give it a very irregular and rather a singular appearance. It is separated from the continent by a channel, which in the neighbourhood of Stralsund is little more than a mile in breadth. The narrow, deep and intricate gulfs afford but an insecure anchorage for ships, not only on account of the shallows and sand banks which often change their position, but also because the tempests on these shores are so violent that the strongest dikes and most solid moles may be demolished in a few hours.

Rugen is partly surrounded by several small islands; the most considerable are Hiddensee and Humantz on the west, and Ruden on the south-east, from the last of which it is not more than four miles distant. The last island was united to Rugen before the year 1309, but during that year, the waters of the sea invaded part of the island, and formed some of the bays, which exist at present, as well as the Bodden, or the strait which separates the two islands. It follows from the extent of the latter, that a surface of 48 square milesⁱ in the southern part of Rugen, was submerged by that encroachment of the sea. The northern part of the island of Rugen is composed of chalk; the peninsula of Jasmund is almost entirely formed of that substance; the central and other districts of the island are covered with clay, sand and gravel, as well as a reddish loam of a very fertile quality, which appears to have been formed by alluvial deposits. Blocks of granite, porphyry and other rocks are observed in the sand.

^a "196 sq. leagues."

^b i. e. by the Russians.

^c "Tourbières," mosses.

^d See Jacob's First Report.

^e Geschichte der Wissenschaften in der Mark Brandenburg, insbesondere der Arzeney-Wissenschaft, p. 206.

^f "Aurochs."

^g "—— that the *aurochs* has disappeared."

^h "Length from north to south, a little more than 11 leagues; greatest breadth from east to west about 9 leagues; superficies 47 leagues."

ⁱ "16 leagues."

The name of the island was in all probability derived from that of the ancient inhabitants, who were called *Rugii* or *Rugiani*, and like the other natives of these northern countries, were of Slavonic origin. Their conversion to Christianity did not take place before the twelfth century.

The industry of the people has for a long time been principally confined to agriculture and the rearing of cattle. Their attention has been directed to these pursuits from the nature of the soil, which in many places is remarkably fruitful, so much so that the island is often called the granary of Stralsund. Many oxen, horses and sheep are reared in the rich pastures, and the most of them are exported to Prussia. The number of inhabitants amounts to twenty-seven thousand.

The shepherds and husbandmen live together in villages and small towns. Bergen, the largest of any, contains 2000 inhabitants, and is considered the capital of the island; it is the seat of government, and the residence of the different authorities. Bergen is situated on a height, which commands a view of nearly the whole island. Many picturesque and romantic sites may be observed from the town; but those who wish to behold the scenery that inspired the early bards of Germany, must visit the Stubbenkammer, a chalk mountain in the peninsula of Jasmund, that is sometimes called the Royal Seat, and to the summit of which no one has ascended since the time of Charles the Twelfth. They must see too the promontory of Arcona, to which frequent allusion is made in Scandinavian poetry. The statue of *Svantavid*, the Jupiter of the Vandals, is preserved in an ancient church near the village of *Allenkirchen*. The Black lake is so called from its fish of the same colour, and it is situated in a sacred wood described by Tacitus.

“In an island of the ocean,” says the historian, “there is a sacred wood, where a chariot consecrated to the goddess,^a and covered with a veil, is allowed to be touched by none except the priest. It is his duty to attend the goddess whenever she enters her holy vehicle; the chariot is drawn by two heifers, and he follows it in profound veneration. If the goddess honours any place with her presence, mirth, feasts and days of rejoicing ensue. On these occasions the natives never go to war, never handle arms, and every hostile weapon is laid aside. Then only the blessings of peace and repose are felt; but at last the goddess becomes weary of the conversation of mortals, and is conducted back to the temple by the priest. The chariot and the veil are then washed and purified in the lake, and even the deity herself, if one chooses to believe it. Slaves are employed in the lustration, and they are forthwith doomed to be swallowed up in the same lake. On that account men are impressed with mysterious terror, and an holy ignorance of what that must be, which none can witness, but those that must immediately afterwards perish.”^b

The goddess Hertha seems to have been the Cybele of the *Rugii*; such at least is the most probable conclusion that can be derived from her name, when it is considered that *erde* signifies earth, in the German language. The lake and the wood mentioned by Tacitus are still held in great veneration by the islanders, so difficult is it to get rid of superstitions founded on fear.

Curiosity is not the only motive that induces travellers to

visit the island; many invalids resort to it; the thermal and ferruginous springs at Sagard have been much frequented by the Germans since the year 1794. The patients find amusement and recreation, a remedy sometimes more effectual than the use of the waters. Putbus, on the shores of the Bodden, is another watering place^c that has of late years risen into notice.

An island still more irregular in its form than Rugen is situated on the eastern coast of Pomerania, and to the south of Ruden. The breadth of Usedom is in some places less than half a mile, and in others, upwards of twelve.^d A part of it is not more than 800 yards from the continent, and its southern shores encompass a great portion of the lake called the Haf, which is neither so large as the Frisch Haf or the Curisch Haf, but which extends to the distance of twenty-eight miles from east to west, and is about five miles at its mean breadth from north to south.^e The island of Usedom is peopled by ten or eleven thousand inhabitants; it is partly covered with hills of sand, and partly with forests in which are found wild boars, deer and other animals. The soil is not fruitful, and the people on the island are more employed in fishing than in agriculture. The capital of Usedom is a town of the same name, which contains a population of 1200 souls. A strait not broader than 800 yards, separates it from Wollin, another island not so large as the former, but inhabited by 6000 individuals; the capital, which is also called Wollin, contains 2500 individuals. The soil, very different from that of Usedom, appears to have been formed by alluvial deposits; its rich pastures are covered with a great number of cattle, which constitute the principal wealth of the island. Other islands are situated on the coast of Pomerania, but all of them are much smaller than those which have been already mentioned.

Stralsund, in the north of Pomerania, the chief town of a government, was formerly considered one of the strongest places in Europe. The island of Rugen and the strait which separates it from that island, together with the lakes and marshes that encompass it on the side of the land, enabled the inhabitants to defend it until 1807, when it was dismantled by the French army. The town was founded in 1230; the streets are crooked and narrow, the houses are dirty and ill built. It contains however a safe and spacious harbour, and the finest public buildings are the arsenal and the mint. It was formerly among the number of the Hanseatic towns, and it still possesses many important commercial privileges; its trade of late years has been much improved. The population in 1807 did not exceed 11,000 souls; it is now equal to 15,900.

The small town of Barth lies to the west of Stralsund, at the mouth of the river of the same name; it is a seaport of some consequence, and it contains about 4000 inhabitants. On the south-east of Stralsund, is situated the town of Greifswalde, the best built of any in the circle. The most remarkable edifices are the church of Saint Nicholas, and the university, which was founded in 1456, and to which a very valuable library has been since attached. The arts and sciences are cultivated, and it possesses more resources than most towns of 7300 inhabitants; thus for instance, it has its observatory and literary society, a theatre and other places of amusement. Its situation, at about three miles' distance from the sea, is favourable to commerce; it is sur-

^a Hertha.

^b Tacitus, de Moribus Germanorum. Chapter XL.
For sea bathing.

^d “Breadth from $\frac{1}{2}$ to 1 leagues; length from south-west to north-east, 12 leagues; superficial extent 18 sq. leagues.”

^e “Length 10 leagues; mean breadth 2 leagues.”

rounded with walls, and flanked with bastions; its ramparts are shaded with trees, and form agreeable walks. There is a large salt work at no great distance from its walls, and the wood of Eldena forms the finest part of the neighbouring country. Wolgast, situated on the strait that separates the continent from the island of Usedom, has a small harbour, and a flourishing commerce; the houses are neatly built, and it contains 4400 inhabitants. It was formerly the residence of the dukes of Pomerania, and the ruins of their ancient castle rise above the old walls of the town.

The Peene divides the circle of Stralsund from that of Stettin, in which the two most western towns are Demmin and Anklam. The first was much injured during the battles that were fought between the French and the Russians in the month of April, 1807; it is not peopled by more than 4000 inhabitants. The second is a manufacturing town, and carries on a trade in cloth, linen and leather; its harbour on the Peene is sometimes covered with vessels, and its population is not less than 6000 souls. Pasewalk possesses cloth manufactories, tan yards and distilleries, but its inhabitants do not exceed 3500.

Stettin, or Old Stettin, as it is sometimes called, contains nearly 26,000 individuals. Its principal fortifications are the two forts of Prussia, and those of William and Leopold. The town is built on the left bank of the Oder, and communicates by a bridge with the suburb of Lastadia, which is situated on the right bank of the same river, and encompassed with ditches, outworks and marshes. Stettin was formerly a Hanseatic town; it is now the metropolis of a government, and the seat of the different provincial authorities and a supreme court of justice. The royal castle, the government house, the theatre, the exchange and the arsenal are the principal edifices. There are six churches, and in that of the castle are the tombs and portraits of several dukes of Pomerania. The statue of Frederick the Second, is the great ornament of the Royal Square; it was erected in consequence of the unanimous votes of the districts. The store-houses belonging to the salt company attract the attention of strangers; they are supposed to be the largest of any in Prussia. The most useful institutions are the university,^a the astronomical, drawing and naval seminaries, and the normal school. The collections that are worthy of being visited, are the academical library, and the museum belonging to a lodge of free masons. The most frequented public walks are situated in the neighbourhood of the square and ramparts; they are shaded by lime trees.

A large space of ground has been laid out as a public walk near the village of Ziegenarth in the immediate neighbourhood of the town, and in fine weather, sailing parties set out from the bridge of Wick, and from Frauendorf on the Oder. The lake of Damm, the large forests on the right side of it, the plains which extend on the left to the remotest verge of the horizon, and the numerous vessels at the mouth of the Oder, form part of the scenery in the adjoining country.

The commerce of Stettin is very considerable; some of its merchant ships belong to individuals, and others to the bank of Berlin. In some years not fewer than 1200 trading vessels have entered its port. It is unnecessary to enumerate the different articles, which make up the imports and exports of this commercial town; but it may be re-

marked, that 21,000 tons or 42,000,000 pounds of flax seed, the produce of Prussia, are exported every year from its harbour. Stettin opened its gates to the French on the 21st of October, 1806, and they kept possession of it until the 22d of November, 1813, the day on which the garrison capitulated; the Prussian army made their entrance on the 5th of the following month. G. Kirstein or Kirstenius, a Latin poet and celebrated physician, the friend of Christina queen of Sweden, is one of the few distinguished men that have been born in Stettin.

Stargard, a town of 8400 inhabitants, which must not be confounded with another place of the same name in the centre of Western Prussia, lies to the east of Stettin, on the banks of the Ihna. It possesses an university and a school of arts, and several manufactories of cloth and spirits. The cupola of the church of St. Mary has been considered the finest in Germany. Treptow or New Treptow lies towards the north, on the Bega; its population amounts to 4000 souls; it has manufactories of cloth, leather, and spirits, and some maritime commerce. Colberg, built on the sea shore, at the mouth of the Persante, is a place of considerable importance, both from its fortress and the number of its inhabitants, which amounts to 7500. The largest public buildings are the townhouse, the cathedral and an aqueduct by which all the inhabitants are supplied with water. There is also a convent for seven daughters of the nobility, and nine of the burgesses.^b Its salt works, its trade, which extends even to Spain, its cloth and linen manufactures, and its salmon and lamprey fisheries, are the principal sources of its wealth. Coslin or Koeslin is not so large; it contains only 4800 inhabitants. The town is modern and well built; having been wholly destroyed by fire in 1718, it was rebuilt by Frederick William the First, and the inhabitants, to express their gratitude, erected his statue in one of the squares.^c It has been selected as the residence of the governor,^c and among its useful establishments, may be mentioned the agricultural society of Pomerania, and several schools. Coslin is situated on a dismal and desert plain, which reaches westward to the banks of the Bega, and is more than twenty leagues in extent; but the mountain of Gollenberg rises at the distance of a league from the town, and its summit commands an extensive view of the sea. The small town of New Stettin, which contains only 2400 inhabitants, is situated between the lakes of Streitzig and Wilm, and not far from the sources of the Persante. It possesses an university, a royal castle, and an almshouse; the last establishment has been long managed in a way that is highly creditable to the municipal authorities. Polzen or Polzin, a town of 1700 inhabitants, is built in the middle of an agreeable and fruitful plain, encompassed with mountains and forests; it is much visited on account of a medicinal spring in the neighbouring village of Luisenbad.

The town of Stolpe, so called from the river on which it is built, contains a population of 6000 souls. It possesses a considerable maritime commerce, its beer is sold throughout Prussia, and not the least important part of its trade consists in amber ornaments. Rugenwalde is a small seaport on the Baltic and at the mouth of the Stolpe; the principal articles exported from it, are linen, sail-cloth, and spirits.^d It is peopled by 3800 inhabitants; but a great many strangers resort to it in the summer season.^e

^a Royal Academical Gymnasium. The term *university* is applied in this part of the Geography to institutions which are not now recognised as universities by the different governments.—P.

^b Stein, Handbuch der Geographie, II.

^c It is the seat of the administration and supreme court for the government of Koeslin.—P.

^d "It has manufactories of sail-cloth and spirits."

^e "For sea bathing."

We may now terminate our account of Pomerania, for the small town of Lauenburg, notwithstanding its cloth manufactory, is too insignificant to merit notice. Belgard and other places of the same sort, through which the traveller passes in his journey towards the eastern extremity of the province, resemble villages rather than towns. It may be observed, however, that the fine sand in the neighbourhood of Leba is more valuable than any other in Prussia, for the purpose of making glass for crucibles.

The province of Saxony is one of the latest and most important acquisitions made by Prussia. It is mostly formed by portions dismembered from the Saxon states. Divided into three governments, it is bounded on the north and the west by the kingdom of Hanover, the dutchy of Brunswick and electoral Hesse, on the south by the dutchies of Saxe Weimar, Saxe Gotha and the kingdom of Saxony, lastly on the east and the north east by Brandenburg. It is not less than four hundred and fifty-eight German or more than five thousand four hundred and twenty-five English square miles^a in superficial extent. Its population amounts to 1,259,200 inhabitants, who are scattered in a hundred and forty-three towns, twenty-six burghs, and two thousand nine hundred and sixty-five villages. Thus there are more on an average than two hundred and thirty individuals for every square mile,^b a circumstance from which some notion may be inferred of the resources of the province.

It is difficult to arrive at much accurate information concerning the ancient people that inhabited the country. It might be necessary to examine hypotheses, and explain obscure passages on which little light has been thrown by the labours of Spangenberg, Fabricius and other authors, who have written on the history of the Saxons. They were of the same origin as the people, who before the Christian era, possessed the country that now forms the kingdom of Saxony, and it is not less certain that a considerable portion of the province was peopled by the Wends. The ancient Saxons sacrificed their prisoners of war to the gods, to whom they consecrated the vast forests of Germany, and like the Celts, never built any temples. Their superstition too, of the same description as that of barbarous nations that exist at present in the most northern countries, was not confined to one or two objects. They calculated future events from the flight of birds, and the neighing of horses; the different intonations of the latter were interpreted by the priests. The flesh of wild animals was their principal food, and the art of making fermented liquors was known to them from time immemorial. It is unnecessary to mention the conquests of that warlike people, who at different periods desolated many European countries, made themselves masters of England, and invaded Spain. It is well known with what obstinacy they resisted for thirty years the armies of Charlemagne. That monarch, whose enlightened views have been extolled by some writers, had no other aim in making war against the Saxons, than to compel them to embrace Christianity, which they at last adopted reluctantly, when unable to contend against his numerous troops, and when worn out by destructive contests. But their forced conversion lasted only for a season; and it was not before the twelfth century, during the reign of Albert the Bear, that they

began to feel the blessings of a religion, which has often been injured by the protection of princes.

The geology of the province has been repeatedly examined; it shall be shown in the sequel that it abounds in metals, coal and different minerals. The variegated sandstone that is observed at Oster-Weddingen, about three leagues to the south-west of Magdeburg, belongs to the coal formation, and the different deposits that rest upon it, are of tertiary formation. But these deposits indicate, as Professor Gernar has remarked, a still more recent formation than that in the neighbourhood of Paris.^c It is certain at least that the remains of more than twenty-two genera of shells, the species of which are different from any in the environs of Paris, and resemble more those that exist at present, have been collected in the shell sand near Oster-Weddingen. They are placed below a stratum of argillaceous marl, which in the province of Saxony serves as a general covering for the beds of lignite. It appears from the work of M. Frederick Hoffmann,^d that the remains of different monocotyledonous plants, such as palms and reeds, have been observed among the argillaceous schistus and micaceous sandstone,^e to the north of Magdeburg. The schistus becomes bituminous in the neighbourhood of Alvensleben, and fossil fish are imbedded in it; the same rock is covered with variegated sandstone in the vicinity of Ermsleben, to the south of Magdeburg, and it contains the impressions of many pyritized plants, or such as are impregnated with sulphuret of iron. Fish impregnated with the same substance are enclosed in the schistus near Rothenburg on the Saale, and also near Mansfeld and Eisleben; the most of them belong to species which are now extinct, but of which the genera still exist, or to species of which the genera are wholly unknown. It is observable that all of them are contorted, as if their death had been sudden and violent.

Friesleben observes that the formations in the part of the country already mentioned, and perhaps in the greater part of Germany, may be arranged into four distinct divisions. The first or the one nearest the surface, immediately below the vegetable mould, consists of shell limestone, not unlike the rock that forms the chain of Jura. The second contains, but not in any regular order, deposits of clay, sand, marl, gypsum, coal and limestone, and in some parts iron ore is found, but animal remains are rarely observed. The third consists of that compact limestone, which the Germans call *zechstein*, the formation of which is more ancient than the preceding, and also of gypsum, sandstone, and iron and copper schistus, marked in many places with the impressions of fish. The fourth is composed of coal and red sandstone; it abounds in iron and vegetable fossils, but contains little limestone.

The Brocken and the Dolmar are the highest mountains in the province of Saxony. The last however is not more than 2020 feet in height.^f According to the measurement of M. Trebra,^g the former is not higher than 2966 feet,^h but it appears from more correct observations that it is at least 3534.ⁱ The Brocken has perhaps attracted the attention of philosophers and geologists more than any other mountain in Germany; it has been described at different times by Schröder, Bernouilli and Deluc. It forms the northern extremity of the Hartz mountains,

^a "1262 sq. leagues."

^b Population, 998 per sq. league.

^c Neues Journal für Chemie und Physik, v. VII. p. 176.

^d In Svo. Berlin, 1823.

VOL. II.—NOS. 111 & 112.

^e The *Grauwacke* of the Germans.

^f "620 metres."

^g Observations sur l'intérieur des Montagnes, p. 130, in folio.

^h "2966 feet or 964 metres."

ⁱ "1095 metres."

and the western limit of the province of Saxony. On its summit are several blocks of granite, which the country people call the altar and the sorcerer's chair; they are supposed to be the remains of a monument erected at a very remote period to *Krodo*, an idol that was worshipped by the ancient Saxons. He who ascends to the summit of the same mountain may survey a plain seventy leagues in extent. The Eker, a small river, rises from its base.

The province of Saxony is rich in grain, fruits and different vegetables; crops of flax, hemp and tobacco are raised, and the vine is cultivated in some places, for instance in the neighbourhood of Merseburg.

It may be seen from the description of the principal towns in the province, that its mines, iron works and founderies, its woollen, linen and cotton manufactories, the quantity of sugar made from beets, and also the great number of its oxen, sheep and horses, render it one of the wealthiest countries in the Prussian monarchy.

The number of catholics is not so great as in Silesia, but much greater than in Pomerania and Brandenburg. It appears from a statement of M. Hassel^a that there was not more in 1817, than seventy-eight thousand catholics, while the number of protestants amounted in the same year to one million, a hundred and thirty-two thousand, nine hundred and seventy-two. It is also stated that the Jews amounted in all to three thousand two hundred and forty-two persons, while only four individuals belonged to the sect of the Menonites. That sect derives its name from Menno, a Dutch reformer, who taught in the sixteenth century that the only rule of faith is contained in the New Testament, that a trinity is incompatible with the divine nature, that the soul after death is neither in heaven nor in hell, and that a true Christian ought not to hold any mercenary office.

Several small districts subject to foreign princes, are encompassed by the province of Saxony. These districts belong to the grand duke of Saxe Weimar, the king of Hanover, the duke of Brunswick, the prince of Schwartzburg, and the princes of Hanau. It is necessary therefore not to confound their dominions with those of Prussia.

If we begin by describing the towns in the eastern part of the province, Wittemberg on the banks of the Elbe, is the first of any importance. It belongs to the government of Merseburg, and contains a population of 6700 inhabitants. The university of Wittemberg was at one time attended by a great number of students, but it has now lost much of its celebrity.^b The other seminaries are a lyceum, a school of theology, and a school of midwifery. There is not more than one bridge across the Elbe, and it is built of wood. Few places have suffered more from fires and from war. While it was bombarded in 1760, eighteen public buildings and nearly a third part of the town were destroyed; the loss it sustained in 1806, was not less considerable, and in 1812, three hundred houses were wholly consumed. It was exposed from the first of March, 1813, to the twelfth of January in the following year, to the attacks of the Prussian general Tauentzien, who took it by assault from the French, and was rewarded for his conquest with the title of count of Wittemberg. During that long struggle, the university and the castle church were much injured, twenty-six houses were destroyed in the town, and two hundred and fifty-nine in the suburbs. The Prussian go-

vernment has since the peace done all it could to remedy the evils occasioned by the war. Two new suburbs were built in 1817, one of which on the left bank of the Elbe has been called Little Wittemberg. The house inhabited by Luther is situated in the town; many distinguished strangers have written their names on the walls of his chamber; the name of Peter the Great is written with chalk, and a glass case has been placed over it. The remains of Luther were deposited in the castle church, where too rest the ashes of his friend Melancthon, whose numerous and learned writings were among the means of establishing the reformation in Germany. The academy of Wittemberg used to testify its respect for that mild and prudent reformer by a general mourning on the anniversary of his death. A number of establishments in the neighbourhood of the town are employed in preparing colours, in making sugar from beets, and in manufacturing sulphuric acid.

Linen and pottery are the principal articles that are made at Bitterfeld on the left bank of the Mulda, and an extensive tract of country round Brehna is set apart for the culture of hops. Torgau on the left bank of the Elbe, has since the additions made to Prussia, become a strong place of great importance. A wooden bridge of 300 yards^c in length has been built across the Elbe; the number of inhabitants is not at present less than 7000; there are several churches, and in the largest is erected a monument to the memory of Catharine Bora, the wife of Luther. The neighbouring country is not uninteresting; Graditz and Döhlen are noted for their horses, and it was at the village of Elsnig that Frederick the Great defeated the Austrians on the third of November, 1760.

Naumburg is situated at the confluence of the Unstrut and the Saale; it is well built, and contains 9000 inhabitants. A supreme court of justice is held in the town; the other institutions are a commercial tribunal, a lyceum with a large and valuable library, a school for the children of burgesses, and another for the education of orphans. The two finest edifices are the cathedral and the church of Saint Wenceslaus; the first was built in 1027; the second is admired on account of its architecture and proportions. A fair, which commences on the twenty-fifth of June, and lasts fifteen days, is held every year in the town, and the inhabitants carry on a considerable trade in woollen stuffs. Naumburg is also a place of amusement, it is generally crowded in winter; during that season of the year, theatres are opened, concerts and mask balls are of frequent occurrence. The Eichhof is the place to which merchants and strangers resort, and the Burgen Garten is the fashionable walk of the higher classes. The inhabitants have not forgotten the war that their forefathers maintained against the Hussites. A deputation of children entreated the general of those sectarians to save their town from destruction; moved by their tears and supplications, he granted their request. A number of young people walk in procession every year to commemorate his clemency.^d A letter is preserved in the town-house,^e which was written by John Frederick the Magnanimous, elector of Saxony, that most zealous defender of Luther's reformation, who was defeated by Charles the Fifth at the battle of Muhlberg, on the 24th of April, 1547, and afterwards conducted as a prisoner to Naumburg. The neighbouring country is agreeable and fruitful; the grape is

^a Statistischer Umriss. Folio, 1823.

^b This university has been united by the Prussian government with that of Halle, and in place of it a theological seminary has been established.—P.

^c "860 feet."

^d This anniversary, July 28, is called the *Kirschnest*.

^e "A few words written with chalk by John Frederick, &c. are carefully preserved in one of the private houses in Naumburg."

cultivated with success, and the wine is not unlike and little inferior to Burgundy. The quantity consumed, exclusively of what is reserved for the distilleries, is very considerable. The town of Naumburg is visited by the strangers that go to the baths of Bibra, a watering place, that has been frequented since the year 1689.

If we follow the course of the Saale, we remark on the left bank of that river, the small but well built town of Weissenfels, which contains about 5600 inhabitants; the greater number of them are employed in manufacturing linen, dressing leather, and making lace. The castle and the church are the only public buildings worthy of notice. A library has of late years been established for the use of the inhabitants; a normal school or seminary for the education of school masters is not well attended. It is perhaps unnecessary to mention that the floor of the council chamber is supposed to be stained with the blood of Gustavus Adolphus; his body, it is certain, was opened there after the victory gained over Wallenstein in 1632, a victory too dearly purchased by the Swedes, for their king lost his life under the walls of Lutzen. The same place has since been the scene of a more important battle, gained by a more extraordinary conqueror. Napoleon defeated the Russian and Prussian armies on the second of May, 1813, near the village of Gross-Görschen; in consequence of that engagement, a great part of the houses in Lutzen were reduced to ashes. Prince Leopold of Hesse Homburg fell near the spot now occupied by the iron obelisk, which was erected by the king of Prussia to the memory of the young warrior.

Merseburg is situated on the banks of the Saale, at some distance below the last town. It is the chief place of a government, and contains 8800 inhabitants. It is adorned by many fine buildings, among others, the town-house, the palace of the Count Von Zach, the bridge over the Saale, and the cathedral, a Gothic edifice, flanked with four pyramidal turrets; in the interior of the church are several valuable pictures, and the bronze tomb of the emperor Rodolph of Swabia. The library of the chapter is rich in manuscripts. The most important institutions are a college, an orphan hospital and a work-house. Merseburg possesses a flourishing trade; four different fairs are held in it every year; but the chief source of its wealth depends on its breweries, which are celebrated throughout Germany; the quantity of beer annually consumed in the town and in different parts of the country, is not less than 27,000 tuns. Many villas and country houses are built in the neighbourhood; the most remarkable places in the vicinity, are the romantic lake of St. Gothard, Lauchstädt, which is celebrated on account of its mineral waters, and Durenberg, equally known from its salt springs.

If the importance and population of a town were the only criterions of determining its political rank, Halle, which contains 24,000 inhabitants, and not Merseburg, ought to have been the metropolis of the government. The cathedral, of which the tower is higher than 268 feet,^a the church of St. Ulric and its curious monuments, and the townhouse, where the ancient imperial constitution, known by the name of the Golden Bull, is preserved, are worthy of notice. But the celebrity of the town depends on other causes. Many distinguished men have been educated at its university, which was founded in 1694; the names of

Wolff, Hoffmann, Balthazar Brunner, a distinguished physician, and Paul Hermann, one of the most celebrated botanists of the seventeenth century, might be mentioned among the number of its professors. Not more than 600 students attend the university at present;^b but no branch of knowledge is neglected; there are schools of anatomy and surgery, lectures on mineralogy, chemistry, botany and astronomy, public libraries, the most valuable of which are those belonging to the university and Saint Mary's church, and lastly, several collections of antiquities and natural history. Different literary societies might be enumerated, and also a school for miners, a seminary of theology and philosophy, a society of natural history, and a bible society. More than 1,800,000 Bibles, and more than 800,000 New Testaments, have been printed and distributed in the course of a year. A Political Journal, and the Universal Literary Gazette, which was formerly printed at Jena, are now published at Halle. The orphan hospital was founded in 1698 by Dr. Franke, and is at present one of the most useful institutions in the town. The baths, at no great distance from the hospital, are visited by all the strangers that arrive at Halle. Concerts, balls and theatres are the amusements of winter, and the public walks in the neighbourhood are crowded in summer.

Several mines of rock salt,^c are worked within the territory of Halle, and the value of their annual produce is not less than 125,000 rix-dollars, or £18,750. The workmen that are employed in these mines are called *Hallores*,^d and they are the only pure descendants of the ancient Wends; they still retain the manners, language, laws, and even the costume of their ancestors.

Halle is also important from its numerous manufactories. It may be stated that the making of beet sugar has been found a very profitable employment. The ground round the town is well cultivated, and produces a variety of excellent vegetables, and almost every part of the country in the neighbourhood abounds with game.

Wettin, a small town of 2700 inhabitants, contains the ancient castle, that was formerly the residence of the Saxon princes. It is also the seat of a royal council of mines, and the coal that is obtained in its vicinity, furnishes employment to more than two hundred workmen. The village of Rothenburg, which is not very far from it, has been long celebrated for its copper mines, which produce annually 4400 quintals of that metal.

We may terminate our account of the government of Merseburg by making some general observations on the towns that have not been described. Eisleben, which is one of the most important, does not contain fewer than 6400 inhabitants. It is situated on a hill, and divided into the Old and New Town. It is a place of great celebrity, not on account of the church of St. Peter, nor of that of St. Andrew, with its curious monuments, nor on account of its town-house, which is covered with copper, but from being the birth place of Luther, and the place where that reformer acquired his title to immortality. Strangers may still observe in the church of St. Andrew, the pulpit from which the reformer menaced the Vatican; that pulpit is now used only three times a year, and on stated days; the veneration of which Luther has been the object, has consecrated the house that he occupied as a school for the gra-

^a "Height 268 feet." The red tower rises 268 Rhenish feet. (Ed. Encyc.) The Rhenish or Rhinland foot is 1,023 Eng. (Hutton).—P.

^b "The university has still more than 600 students." In 1802, it had 634. ^c Salt springs. Ed. Encyc. Cyc.

^d *Halloren* (Germ.) *Hallers*, Rees' Cyc.

tautous education of orphans and indigent children. It has since been endowed and extended by the Prussian government; the hat, the mantle and different relics of the German reformer, are preserved in one of the rooms, and others are adorned with paintings, which represent some of the principal events connected with the reformation. Almost all strangers visit Luther's house on their arrival at Eisleben, and their names are inscribed in a book, which is kept for the purpose.

Heststaed^a is a town of 3200 inhabitants; silver and copper are extracted from several mines in its vicinity; their weekly produce is estimated at 40 marks of silver, and 200 quintals of copper. The population of Zeitz is not generally supposed to be greater than that of Eisleben, but according to the estimate of Hassel, it cannot be less than 7000 souls.^b It is adorned by two castles, and among its institutions are a lyceum, a chapter, a normal school^c and an orphan hospital. The trade of the place consists in cloth, woollen stuffs, metallic buttons and wax and tallow candles. Several curious and valuable manuscripts are contained in the library of the chapter, and the collegiate church is worthy of notice, not only from its architecture, but also on account of a fine picture above the altar.

Sangershausen is a small town of nearly 4000 inhabitants, who are mostly employed in forging iron, casting copper, and making saltpetre. Stolberg is not nearly so large; it does not contain more than 2000 souls, but it is there that the counts of Stolberg hold their courts, and that a council to which the management of the neighbouring mines is committed, assembles. A lyceum and an orphan hospital have been built in the town. Querfurt, on the banks of the Querne, is not much more important; its population amounts only to 3000 inhabitants; it is the seat of a college, and in the neighbourhood of its ancient castle, cotton mills and saltpetre works have been erected.

We have mentioned every place of any consequence in the government of Merseburg; that of Erfurt is not so large; indeed it is only necessary to give an account of four of its towns,—Erfurt, its capital, Nordhausen, Elrich and Langensalza. Erfurt, which is peopled by 21,000 souls, was formerly an imperial city, and it continued independent long after the capitulation, by which its gates were opened to the French on the fifteenth of October, 1806. Many of its houses and public buildings were destroyed during a bombardment in 1813, which it supported for more than a month. It has been affirmed that upwards of 2000 persons perished from the effects of epidemical diseases, which were at that time common both in Germany and in France. The town is defended by two strong citadels, but the only remarkable building is the cathedral, of which the bell weighs 27,000 pounds;^d it is considered one of the wonders of the country. The stranger may still observe the cell in the ancient convent of the Augustines, which Luther inhabited during a period of seven years. There are not at present fewer than eight churches that adhere to the Augsburg confession. The celebrated university, which was instituted in 1392, and abolished in 1816, tended to diffuse a taste for literature and science among the inhabitants. The protestant gymnasium, the catholic seminary, the drawing academy and the schools of pharmacy and chemistry are well attended; the libraries

and public collections are open to all the inhabitants. Erfurt also possesses an academy of sciences, and many other useful institutions. The theatre or the principal place of amusement is open the greater part of the year. It was in this town that Napoleon had an interview with the emperor of Russia, the king of Prussia, and several German princes, on the 27th of September, 1808. There are many public walks near the town, and the neighbouring country is fruitful and well cultivated. A colony of the Moravian brethren have settled in the adjoining village of New Dietendorf. Different articles are manufactured at Erfurt; but it is difficult to account for the preference which the inhabitants have for the trade of a shoemaker; it is however certain that the number of master shoemakers is not less than three hundred.

Nordhausen on the banks of the Zorge, is a town of 10,400 inhabitants; its public buildings are nowise remarkable; they consist of seven churches, a gymnasium and a convent. The trade carried on by the inhabitants has been greatly improved; there are not fewer than 120 distilleries, in which more than 600,000 bushels of grain are consumed, while the draff serves to fatten more than 40,000 swine and 6000 oxen. The produce of the oil mills brings about 150,000 rix-dollars or £22,500. The anniversary of Luther is observed as a holiday, and the different authorities walk in procession.

The population of Elrich amounts only to 2500 souls; it is not a place of much trade, although it possesses several manufactories of cloth and woollen stuffs. The cavern of Kelle in the neighbourhood has been much admired. It is not more than two miles and a half from the town, and he who visits it, must descend from its entrance to the depth of 150 feet below the surface of the ground; the inner part of the cave is about ten feet lower. Its breadth is not less than 256 feet, and it is upwards of 268 in length.^e The waters of a fresh and limpid spring form a deep reservoir at a short distance from the entrance, and fine stalactites are seen on different parts of the walls.

Langensalza is so called from the river Salza, near which it has been built, a place now more remarkable for its industry and trade, the culture of the neighbouring country, and the labours of its agricultural society, than for its old castle, the church of St. Stephen, or its lyceum. The crevices with which the soil had been furrowed, became apparently broader on the 10th of June, 1813, and the town was almost overturned; all the gardens in the neighbourhood were destroyed, and more than a thousand acres of meadow land were inundated. The population in 1819, amounted to 6000 individuals. It appears too from a statistical account relative to the same year, that besides several manufactories of silk and serge, there were not fewer than 3000 cotton looms.^f The salutary effects of the sulphureous baths at Langensalza have been much commended; many strangers resort to them. The sources of these springs have been discovered at *Tennstadt* and at *Tonna*, which have since become well frequented watering places. Fossil bones of elephants have been often found near the last village. They are imbedded in the alluvial deposits by which the soil is formed. The whole of the neighbouring country is very fruitful; the inhabitants cultivate anise, madder and woad (*Isatis tinctoria*.) the last of which has

^a Hettstadt or Heckstadt (Morse).—Hecstædt (Vosgien.)

^b Statistischer Umriss von G. Hassel.

^c "Seminary for schoolmasters."

^d 30,250 lbs. Ed. Encyc.

^e "Son entrée a 150 pieds de hauteur, le plafond n'a que six pieds de plus; mais son intérieur a 256 pieds de largeur et 268 de longueur." ?

^f "Métiers à filer," spinning machines.

been supposed to be of a better quality than any produced in the rest of Germany. Calcareous concretions are frequently observed in the alluvial sand at a short distance from Langensalza; a healing virtue was in former times attributed to them by the credulous; it was imagined that they could consolidate fractured bones, and they were on that account called *osteocolla*.

The government of Magdeburg contains a greater number of important towns than both the two which have been last mentioned.

Quedlinburg on the Bude, which is one of the most populous, contains 12,000 inhabitants. The ancient castle still remains, where the sovereign abbess of the country used to reside, a princess, who notwithstanding the vows of humility attached to her holy profession, sat as a member of the empire on the same bench with the prelates of the Rhine. The tombs of the emperor Henry I. and the empress Catherine may still be seen in the church of the castle. Several articles of great antiquity, and different relics of doubtful origin might also be enumerated; among others, one of the vases that was supposed to have been used at the marriage feast of Cana in Galilee, and which was given as such to the abbey, by the emperor Otho the Great. A curiosity of a different description has been placed in the large hall of the townhouse; it is an iron cage, in which a count of Reinstein, whom Otho the Great accused of treason, was confined. Quedlinburg boasts of having been the birthplace of the poet Klopstock.

Wernigerode is situated on the side of Mount Brocken, at the elevation of 827 feet above the level of the sea. It possesses a gymnasium, a library of 80,000 volumes, among which there are not fewer than 2000 bibles, a museum of natural history, and a fine botanical garden. It contains a population of more than 4000 inhabitants, and its trade consists in corn, wood, iron and spirits which are distilled in the neighbourhood.

Halberstadt is, next to Magdeburg, the most important town in the government; its population amounts to 14,700 individuals, and in that number are included more than a hundred Jewish families. We might mention among its institutions, three public schools, a seminary for the education of schoolmasters, and a literary society of which the transactions are published. It is one of the gayest towns in the province; balls, concerts, assemblies and plays are the ordinary amusements. The grounds in the neighbourhood are laid out in public walks, that may vie with any in Saxony. The Spiegelberge hills, which were covered with plantations by the late Baron Spiegel, to whom they belonged, form a vast English garden possessing the most varied and magnificent views; the wealthy proprietor, who devoted his fortune to the embellishment of this public walk, may claim the gratitude of his fellow citizens. Halberstadt has given birth to two men, whose reputation depends on very different titles; the first is Gleim, the celebrated poet and patriot; the second is Breyhahn, the supposed inventor of beer. Strangers seldom fail to visit the garden in which the ashes of the poet are deposited. An inscription on the house of the other, announces his invention, the value of which so many are able to appreciate; but while the name of Gleim is repeated by all the admirers of German literature, that of Breyhahn is hardly known beyond the walls of his native town.

The town of Kalbe on the banks of the Saale, contains, according to Stein, 5588 inhabitants, but that number has been reduced by Hassel to 4098. It is in other respects not so worthy of notice as Barby, the population of which amounts only to 2800 souls. That small town on the banks of the Elbe, possesses an observatory, a collection of natural history, and a printing office. Aschersleben is a place of trade, its linen and woollen stuffs are exported; it is peopled by 8500 inhabitants. The vineyards in the circle of Merseburg occupy a space of 2923 acres,^a and their annual produce is not less than 17,500 eimers or 1,120,000 bottles of wine.

Magdeburg is the most important place in the province of Saxony; it was formerly an imperial and Hanseatic town, and it contains at present a population of 36,600 inhabitants. It is situated on the banks of the Elbe, at the height of 234 feet above the level of the sea. The Elbe renders its means of defence more effectual, and a great part of it was destroyed in 1812, in order to extend its fortifications. The number of inhabitants in 1815, amounted only to 32,867; the rapid increase that has since taken place in the population, must be chiefly attributed to the blessings of peace. It is unnecessary to give a minute account of the public buildings, of which the most remarkable are the arsenal, a fine post office, and a large custom house. Some notice has already been taken of the numerous hospitals for the education of orphans in different parts of Prussia; that of Magdeburg is worthy of its importance. The cathedral may be mentioned on account of its portal, altar and baptismal fonts, but the church of the garrison is more interesting from its antiquity; it was built in the year 1016. The dungeon into which General La Fayette was thrown, may be seen at Magdeburg; in that instance, it has been generally admitted, the law of nations was violated. The two finest squares in the town are that of the cathedral and the old market place; the latter is adorned with a statue of the emperor Otho the Great, and the side of the other is formed by the cathedral. Among the different useful institutions at Magdeburg, are a seminary for teaching schoolmasters, several schools, one of which is the provincial school of arts, two commercial seminaries and a royal boarding-house for the education of girls. The trade of Magdeburg does not consist only in the sale of its linen, woollen and cotton stuffs, and the produce of its different manufactories; its situation renders it the mart for the trade between Germany and the North.

The small town of Schœnebeck is situated to the south of Magdeburg; it contains 4800 inhabitants, and it is noted for its salt springs, which produce annually more than 58,000,000 pounds of salt. Burg is peopled by 10,000 inhabitants, who are mostly descended from Swiss and French Protestants; its trade consists principally in cloth; more than 8000 pieces are manufactured every year. Stendal, a town of 5500 inhabitants, is in other respects insignificant, but it has the honour of being the birth place of the celebrated Winckelmann. Salzwedel on the Jetze is the last town of any importance on the northern frontier of the province; its population amounts to 5800 souls; the produce of its manufactories is considerable; according to Stein,^b it exports every year 1065 pieces of cloth, and more than 89,000 yards of linen.

We have now given an account of the seven provinces,

^a "2923 *jours ou arpens*"—2400 *morgen* (Hassel.) For these measures, see Tables of Mathemat. and Physical Geography, tab. IX.

^b Handbuch der Geographie und Statistik.

which form geographically the kingdom of Prussia, in other words a country of 4161 German square miles, or 49,932 English square miles, in superficial extent;^a but Prussia comprehends politically the four provinces of Westphalia, Juliers, Cleves and Berg, the lower Rhine and Neufchatel. These provinces, separated from the other Prussian dominions by Hesse, Brunswick and other principalities, and conterminous to Hanover, the Netherlands and France, may be considered temporary acquisitions, not gained on the field of battle, but ceded to Prussia by diplomatic arrangements. States not governed by the same laws, not participating in the same interests, have suddenly become Prussian. It would be incorrect therefore to identify them with the monarchy; they are rather military occupations or Prussian colonies. They shall be more fully mentioned in a different part of the work, in the account of Germany and the Germanic Confederation.

It remains for us to state some facts connected with the statistics of the Prussian dominions. The population of these states follows an increasing progression, as in the rest of Europe. Ample data are not wanting to prove the truth of this statement; it is sufficient to illustrate it by two examples. The number of deaths in Berlin amounted in 1824 to 6336, and the number of births to 7531. The number of deaths in Königsberg during the same year was equal to 1986, and the number of births to 2391. It may be seen that the proportion in these two places is nearly the same. It is not however by examining the proportion that subsists in the different towns that accurate information can be obtained on the subject, both because the unmarried persons, who reside in them, are more numerous than in the country, and also because the number of individuals that remain in them for a short time, is not taken into consideration, and is often very different in different places. It is necessary therefore to determine the proportion as it subsists throughout the country, and it is not difficult to do so, for registers of births and deaths have been kept with great care during several years. It is only in this manner that a correct estimate can be formed of the increase in the population. According to the last census made in Prussia, the number of inhabitants throughout the whole of its possessions amounted to 11,480,815. During a period of five years from 1816 to 1821, the number of deaths amounted to 1,823,511, and the births to 2,843,487. The excess was thus equal to 1,019,976, which indicates a much greater proportion than in Berlin or Königsberg. In the number of births are included 35,535 illegitimate children, or one out of every three hundred and twenty-three. In many other European countries, the number is much more considerable.

As to the frequency of crimes, the different provinces under the Prussian government furnish us with very different results. It appears that crimes are most rare in the protestant provinces, and most common in the catholic, or in those where the numerous festivals and holidays of the Roman church are observed. It is certain besides that the most industrious countries are those in which there are the fewest catholics. These observations are not extended to the lower orders that inhabit large towns; their baneful influence on the habits of the people is too well known.

The researches of M. Kamps^b exhibit very curious results on these important questions.

It appears that one individual has been found guilty of murder out of every sixty thousand inhabitants in the territories of Aix-la-Chapelle and Cologne; one out of every thirty-five thousand in the province of Saxony, and the country of Munster; one out of twenty-five thousand in the district of Marienwerder; one for every four thousand seven hundred and sixty in Pomerania; and lastly, one for every four hundred in the towns of Cologne, Munster, Dusseldorf and Aix-la-Chapelle.

As to the number of thefts and robberies, the following proportions have been observed; one person for every six thousand four hundred and thirty-two Pomeranians; one for every three thousand persons in western Prussia, Silesia, and eastern Prussia; one for every eight hundred in the neighbourhood of Coblenz and Treves; and lastly, one for every four hundred in the countries of Cologne, Dusseldorf, Munster and Aix-la-Chapelle.

We have already had occasion to mention the universities of Berlin and Halle, and the number of students that attend them. The other university towns in Prussia are Königsberg, Breslaw, Greifswalde, Bonn and Munster. The first was attended by three hundred and three students in 1824; the second by seven hundred and ten; the third by a hundred and twenty-seven; the fourth by five hundred and twenty-six; and the last by two hundred and eighty-four. Foreigners made up nearly a half of the students in these different universities.^c

It ought to have been mentioned in the account of Berlin, that a saving-bank was established in that city in 1818; it would have been well, had all the other large towns in Prussia followed the example of the capital. That bank allows 4½ per cent. on every deposit from a crown upwards. It received in 1818, deposits to the amount of 14,491 crowns, but from the confidence of the public, they amounted in 1824 to 685,742 crowns.

The practice of insuring against fire has become very general of late years. Insurance offices have been for a long time established in Prussia, but the people neglected to avail themselves of the benefits which they afforded. Their advantages however are now acknowledged, and the sum for which property in the province of Brandenburg was insured in 1824, amounted to 37,854,875 crowns.

The trade of Prussia, and particularly that in grain, has of late years been much improved, and the cause must be assigned to the wise and enlightened measures of government, by which freedom has been granted to every department of industry.^d It is to be regretted that the example given by Prussia has not been imitated by the German princes, and that laws are still in force, according to which, merchants who trade in corn are considered forestallers, and made liable to severe penalties. Government, by putting this trade on the same footing with others, does all it can to prevent the fatal effects of scarcity or famine, for in that branch of commerce, as in every other, competition is always advantageous to the consumer. The price of grain has been continually falling for some time past, and the landed proprietors attribute it to the policy of government, but it is rather owing to the increasing culture of the

^a Number of English square miles, in the seven provinces, in 1817, 87,021.—Ed. Encyc. The sum of the German square miles in the seven provinces, as given in the following Statistical Table, is 4201.3.—P.

^b Annales sur l'Administration intérieure de l'Etat.

^c "Nearly a thousand foreigners attended these universities."

^d "The trade in grain has of late years been much improved. Government has freed it from all restrictions, as well as the other branches of commerce."

potatoe, which is now much used throughout the country, and also to the successive improvements in agriculture, to the division of many large estates, and, above all, to the difficulty of exportation, a difficulty that is rendered insurmountable by the line of foreign custom houses on the frontiers of Prussia. It is to be hoped that the time may soon come when governments, better informed as to their true interests, may discover the defects and even the absurdity of the present system of duties. The subject of the corn trade shall be more fully considered in the next chapter.

More enlightened than some European governments, Prussia has extended its commercial relations with the new American republics, and that department of its trade has been constantly increasing for some years past. Prussia proper exported in 1825 to the American continent, different sorts of merchandise, of which the value was not less than 1,472,410 crowns, and the provinces on the banks of the Rhine sent in the same year, and to the same countries, goods amounting in value to 955,960 crowns, making a sum total of 2,428,370 crowns. The commerce of its ports on the Baltic, has likewise been improved; not fewer than 1089 vessels entered the harbour of Memel in 1825, and 1115, out of which 974 were loaded with wood, sailed from it. In the course of the same year, 342 vessels entered the port of Pillau on the Frisch Haf, and 285 sailed from it. The number that entered Stettin amounted to 490, and the vessels that left it to 446; 290 entered Stralsund, and 385 sailed from the same harbour; lastly, 587 arrived at Swinesmunde, and 602 departed from it.

The wool trade must have been very flourishing during the same year, for according to the most accurate accounts, 114,626 quintals of raw, and 65,771 of dressed wool were exported from the land and maritime frontiers of Prussia.

Some notice has been already taken of the beet sugar works in the different towns, but the consumption of that article is so great, that the quantity imported annually amounts to 346,000 quintals, exclusively of what is smuggled, which is not supposed to be less than 8000.^a Thus the annual allowance for each individual in the kingdom is about three pounds and a half, which is greater in proportion than the quantity consumed by each individual in France. The importation of coffee is likewise very great; it is equal one year with another to 163,400 quintals.

STATISTICAL TABLES

OF

THE KINGDOM OF PRUSSIA PROPER;

According to the Censuses of 1819 and 1821, as published by Hassel; and according to other more recent authorities.

EASTERN PRUSSIA.

TWO GOVERNMENTS.

A. GOVERNMENT OF KÖNIGSBERG, divided into nineteen circles, of which the chief towns are: Allenstein, Braunsberg, Fischhausen, Friedland, Gerdaunen, Heiligenbeil, Heilsberg, Königsberg, Labiau, Memel, Morungen,

^a Verhändl. des Vereins zur Beförd. des Gewerbes, 1826.

^b A German square mile is equal to nearly twelve Eng. sq. miles.—Tr.

Neidenburg, Ortelsburg, Osterode, Preussisch-Eylau, Preussisch-Holland, Rastenburg, Ræssel, Welau.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 48	} 592,170	} 404.95	} 1462
Burghs 12			
Villages 3717			
Census of 1821	624,163	404.95	1542
Increase from 1819 to 1821	31,993		80

NUMBER OF ACRES.^c

Land 8,702,451. Under water 662,205.

Domestic Animals	Horses	171,601
	Oxen	295,906
	Sheep	244,950
	Goats	1,475
	Swine	180,171

B. GOVERNMENT OF GUMBINNEN, divided into sixteen circles, of which the chief towns are: Angerburg, Darkehmen, Gumbinnen, Goldap, Heidekrug, Insterburg, Johannisburg, Lœtzen, Lyk, Neiderung, Oletzko, Pilkallen, Ragnit, Sensburg, Stallupœhnen, Tilsit.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 19	} 413,373	} 297.85	} 1388
Burghs 13			
Parishes 94			
Villages 2954			
Census of 1821	445,290	297.85	1495
Increase from 1819 to 1821	31,917		107

NUMBER OF ACRES.

Land 6,400,992. Under water 161,537.

Domestic Animals	Horses	145,961
	Oxen	237,480
	Sheep	210,108
	Goats	751
	Swine	147,025

WESTERN PRUSSIA.

TWO GOVERNMENTS.

A. GOVERNMENT OF DANTZIC, divided into seven circles, of which the chief towns are: Behrendt, Dantzic, Elbing, Karthaus, Marienburg, Neustadt, Stargardt.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 11	} 265,582	} 150.89	} 1760
Burghs 6			
Villages 1875			
Census of 1821	283,002	150.89	1875
Increase from 1819 to 1821	17,420		115

NUMBER OF ACRES.

Land 3,242,708. Under water 99,126.

Domestic Animals	Horses	45,275
	Oxen	87,869
	Sheep	109,901
	Goats	953
	Swine	52,339

B. GOVERNMENT OF MARIENWERDER, divided into thirteen circles, of which the chief towns are: Deutsch-Krone, Flatow, Graudenz, Konitz, Kulm, Lœbau, Marien-

^c "Jours or arpents." See note, p. 621.

werder, Rosenberg, Schlochau, Schwetz, Strasburg, Stuhm, Thorn.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 45 } Burghs 4 } Villages 2078 } Census of 1821	367,495	315.06	1167
Increase from 1819 to 1821	24,760		77

NUMBER OF ACRES.
Land 6,770,762.

Domestic Animals	
{ Horses	67,355
{ Oxen	165,251
{ Sheep	384,494
{ Goats	1,805
{ Swine	100,539

GRAND DUTCHY OF POSEN.

TWO GOVERNMENTS.

A. GOVERNMENT OF POSEN, divided into seventeen circles, of which the chief towns are : Adelnau, Birnbaum, Bomst, Buk, Fraustadt, Kosten, Kröben, Krotoschin, Meseritz, Obernik, Pleschen, Posen, Samter, Schildberg, Schrimm, Schroda, Wreschen.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 94 } Burghs 3 } Villages 2410 } Census of 1821	604,612	327.42	1847
Increase from 1819 to 1821	30,576		96

NUMBER OF ACRES.
Land 7,036,573.

Domestic Animals	
{ Horses	52,264
{ Oxen	204,834
{ Sheep	600,471
{ Goats	371
{ Swine	79,302

B. GOVERNMENT OF BROMBERG, divided into nine circles, of which the chief towns are : Bromberg, Chodzeseu, Gnesen, Inowratzlaw, Mogilno, Schubin, Tscharnikow, Wirsitz, Wongrowitz.

	Population.	Surface in German Square Miles.	Inhabitants for every Square Mile.
Towns 54 } Burghs 2 } Villages 1250 } Census of 1821	270,360	211.07	1324
Increase from 1819 to 1821	27,039		85

NUMBER OF ACRES.
Land 4,535,978.

Domestic Animals	
{ Horses	33,700
{ Oxen	107,177
{ Sheep	333,163
{ Goats	1,143
{ Swine	59,629

SILESIA.

THREE GOVERNMENTS.

A. GOVERNMENT OF Breslau, divided into twenty-two circles, of which the chief towns are : Breslau, Brieg,

Frankenstein, Glatz, Guhrau, Habelschwerdt, Militsch, Munsterberg, Namslau, Neumarkt, Nimptsch, Ohlau, Oels, Reichenbach, Schweidnitz, Steinau, Strehlen, Striegau, Trebnitz, Waldenburg, Wartenberg, Wohlau.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 55 } Burghs 8 } Villages 2245 } Census of 1821	833,253	247.41	3368
Increase from 1819 to 1821	18,170		73

NUMBER OF ACRES.
Land 5,316,616.

Domestic Animals	
{ Horses	72,657
{ Oxen	293,203
{ Sheep	896,460
{ Goats	7,856
{ Swine	34,097

B. GOVERNMENT OF OPPELN, divided into sixteen circles, of which the chief towns are : Beuthen, Falkenberg, Gross-Strehlitz, Grottkau, Kosel, Kreuzburg, Leobschütz, Lublinitz, Neisse, Neustadt, Oppeln, Pless, Ratibor, Rosenberg, Rybnik, Tost.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 38 } Burghs 19 } Villages 1846 } Census for 1821	561,203	248.40	2259
Increase from 1819 to 1821	40,359		203

NUMBER OF ACRES.
Land 5,338,329.

Domestic Animals	
{ Horses	69,372
{ Oxen	220,111
{ Sheep	416,388
{ Goats	920
{ Swine	54,459

C. GOVERNMENT OF LIEGNITZ, divided into eighteen circles, of which the chief towns are : Bolkenhain, Bunzlau, Freystadt, Glogau, Gœrlitz, Grünberg, Hainau-Goldberg, Hirschberg, Jauer, Landshut, Lauban, Liegnitz, Löwenberg, Lübben, Rothenburg, Sagan, Schœnau, Sprottau.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 45 } Burghs 11 } Villages 1685 } Census of 1821	667,133	224.49	2974
Increase from 1819 to 1821	17,916		77

NUMBER OF ACRES.
Land 4,820,334.

Domestic Animals	
{ Horses	33,839
{ Oxen	234,037
{ Sheep	542,691
{ Goats	11,467
{ Swine	9,005

PROVINCE OF BRANDENBURG.

TWO GOVERNMENTS.

A. GOVERNMENT OF POTZDAM, divided into thirteen circles, of which the chief towns are : Angermunde, Jüterbock-

Luckenwalde, Niederbarnim, Oberbarnim, Osthavelland, Ostprieignitz, Prenzlau, Ruppin, Teltow-Storkow, Templin, Westhavelland, Westprieignitz, Zaucha-Belzig.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 72	740,333	377.77	1950
Burghs 13			
Villages 1319			
Census of 1821	748,027	377.77	1980
Increase from 1819 to 1821	7,694		30

NUMBER OF ACRES.

Land 8,118,323.

Domestic Animals	
Horses	96,701
Oxen	241,207
Sheep	908,574
Goats	5,761
Swine	88,590

B. GOVERNMENT OF FRANKFORT ON THE ODER, divided into eighteen circles, of which the chief towns are : Arenswalde, Frankfort, Friedeberg, Guben, Kalau, Königsberg, Kottbus, Krossen, Küstrin, Landsberg, Lebus, Luckau, Lubben, Soldin, Sorau, Spremberg-Hoyerswerda, Sternberg, Züllichau.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 70	594,827	371.53	1601
Burghs 7			
Villages 1699			
Census for 1821	615,831	371.53	1657
Increase from 1819 to 1821	21,004		56

NUMBER OF ACRES.

Land 7,984,308.

Domestic Animals	
Horses	67,183
Oxen	286,932
Sheep	810,711
Goats	2,801
Swine	74,041

POMERANIA.

THREE GOVERNMENTS.

A. GOVERNMENT OF STETTIN, divided into thirteen circles, of which the chief towns are : Anklam, Demmin, Greiffenhagen, Greiffenberg, Kammin, Naugardt, Pyritz, Randow, Regenwalde, Saazig, Stettin, Uckermunde, Usedom-Wollin.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 35	341,041	233.13	1463
Burghs 5			
Villages 1500			
Census of 1821	358,974	233.13	1539
Increase from 1819 to 1821	17,933		76

NUMBER OF ACRES.

Land 5,010,027.

Domestic Animals	
Horses	54,992
Oxen	172,470
Sheep	570,186
Goats	1,500
Swine	73,328

B. GOVERNMENT OF KÖESLIN, divided into nine circles, of which the chief towns are : Belgard, Dramburg, Furst-

enthum, Lauenburg-Bütow, Neu-Stettin, Rummelsburg, Schiefelbein, Schlawe, Stolpe.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 23	255,265	258.49	987
Burghs 5			
Villages 1196			
Census of 1821	273,804	258.49	1059
Increase from 1819 to 1821	18,539		72

NUMBER OF ACRES.

Land 5,555,093. Under water 59,470.

Domestic Animals	
Horses	42,111
Oxen	123,954
Sheep	363,791
Goats	1,558
Swine	38,378

C. GOVERNMENT OF STRALSUND, divided into four circles, of which the chief towns are : Bergen, Franzburg, Greifswalde, Grimma.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 14	133,528	74.90	1783
Burghs 3			
Villages 347			
Census of 1821	135,425	74.90	1808
Increase from 1819 to 1821	1,897		25

NUMBER OF ACRES.

Land 1,609,485. Under water 115,595.

Domestic Animals	
Horses	29,514
Oxen	88,504
Sheep	166,371
Goats	181
Swine	25,530

PROVINCE OF SAXONY.

THREE GOVERNMENTS.

A. GOVERNMENT OF MAGDEBURG, divided into fifteen circles, of which the chief towns are : Aschersleben, Gardeleben, Halberstadt, Jerichow I., Jerichow II., Kalbe, Magdeburg, Neuhaldensleben, Oschersleben, Osterburg, Osterwick, Salzwedel, Stendal, Wanzleben, Wolmirstadt.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 50	486,000	204.70	2374
Burghs 3			
Villages 917			
Hamlets and detached houses 580			
Census for 1821	493,560	204.70	2411
Increase from 1819 to 1821	7,560		37

NUMBER OF ACRES.

Land 4,399,149.

Domestic Animals	
Horses	65,804
Oxen	155,528
Sheep	687,240
Goats	5,256
Swine	69,350

B. GOVERNMENT OF MERSEBURG, divided into sixteen circles, of which the chief towns are : Bitterfeld, Delitzsch, Eckartsberga, Halle, Liebenwerda, Mansfeld-Gebirge,

Merseburg, Naumburg, Querfurt, Saale, Sangershausen, Schweinitz, Torgau, Weissenfels, Wittemberg, Zeitz.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 71	525,507	187	2810
Burghs 9			
Villages and Hamlets 1648			
Census for 1821			
	532,939	187	2849
Increase from 1819 to 1821	7,432		39

NUMBER OF ACRES.
Land 4,018,808.

Domestic Animals	Horses	Oxen	Sheep	Goats	Swine
	50,647	200,808	677,425	17,980	76,794

C. GOVERNMENT OF ERFURT, divided into nine circles, of which the chief towns are: Erfurt, Heiligenstadt, Langensalza, Muhlhausen, Nordhausen, Schleusingen, Weissensee, Worbis, Ziegenrück.

	Population.	German Square Miles.	Inhabitants for every Square Mile.
Towns 22	247,714	66.24	3740
Burghs 14			
Villages 399			
Hamlets and detached houses 207			
Census for 1821	248,843	66.24	3756
Increase from 1819 to 1821	1,129		16

NUMBER OF ACRES.
Land 1,423,381.

Domestic Animals	Horses	Oxen	Sheep	Goats	Swine
	17,438	63,190	188,212	10,948	26,786

Number of Inhabitants according to the different nations and sects to which they belong—Number of Monasteries, Churches, Universities and Schools.

EASTERN PRUSSIA.

<i>Different Nations.</i>	
Germans	633,000
Lithuanians	350,000
Koures or Coures, Lettons or Lettonians	20,000
Jews	2,500

<i>Different Sects.</i>	
Protestants	857,000
Catholics	145,000
Mennonites	850
Socinians	150
Jews	2,500

<i>Parishes and Churches.</i>	
Lutheran Parishes (according to the confession of Augsburg)	384
Calvinistic Parishes	18
Catholic Parishes	80
Churches, Chapels and Synagogues	554

<i>Places of Education.</i>	
University	1
Gymnasiums	14

^a "Colleges or secondary schools."

Different Seminaries ^a	69
Primary or Elementary Schools	1937

WESTERN PRUSSIA.

<i>Different Nations.</i>	
Germans	293,000
Poles	327,300
Jews	12,700

<i>Different Sects.</i>	
Protestants	312,000
Catholics	295,700
Mennonites	12,600
Jews	12,700

<i>Monasteries.</i>	
Convents for Men	19
Convents for Women	9

<i>Churches.</i>	
Catholic Churches	571
Lutheran Churches	248
Calvinistic Churches	8
Assemblies of the Mennonite Communion	18

<i>Places of Education.</i>	
Catholic College	1
Catholic Gymnasiums	3
Catholic Seminary	1
Protestant Gymnasiums	4
Normal School ^b	1

GRAND DUTCHY OF POSEN.

<i>Different Nations.</i>	
Germans	155,000
Poles	670,000
Jews	49,900

<i>Different Sects.</i>	
Lutherans	258,500
Calvinists	3,900
Catholics	562,000
Mennonites	28
Greeks	572
Jews	49,900

<i>Monasteries.</i>	
Convents for Men	47
Convents for Women	10

<i>Churches.</i>	
Catholic Churches	581
Greek Church	1
Calvinistic or Reformed Churches	10
Lutheran Churches	111

SILESIA.

<i>Different Nations.</i>	
Germans	1,600,000
Poles	416,000
Wends	24,500
Bohemians or Czechs (<i>Tchecken</i>)	4,500
Jews	16,600

<i>Different Sects.</i>	
Lutherans and Calvinists	1,150,500
Catholics	894,270
Mennonites	230
Jews	16,600

<i>Monasteries.</i>	
Convents for Men	3
Convents for Women	3

^b "Seminary for the education of schoolmasters."

<i>Churches.</i>	
Lutheran	625
Reformed	9
Catholic Churches in three dioceses	1378
Chapels visited by Pilgrims	7
<i>Places of Education.</i>	
Catholic University	1
— Gymnasiums	8
— Seminary	1
Lutheran Gymnasiums	10
Reformed —	1
Normal Schools ^a	13
Jewish Schools	2
Military School	1
Boarding Schools for Girls	4
Primary and Secondary Schools	3500

<i>Places of Education.</i>	
Universities	8*
Professors	54
Students	1,554
Academies	16
Teachers	27
Scholars	875
Public Schools	89
Teachers	141
Scholars	8,032
Private Elementary Schools	51
Teachers	74
Scholars	4,019
Public Elementary Schools	1,036
Teachers	1,120
Scholars	66,944

PROVINCE OF BRANDENBURG.

<i>Different Nations.</i>	
Germans	1,252,000
Wends ^b	68,000
French and Walloons	6,500
Jews	8,500
<i>Different Sects.</i>	
Protestants	1,306,190
Catholics	20,000
Mennonites	310
Jews	8,500
<i>Churches.</i>	
Lutheran	1,216
Calvinistic	37
French Reformed	30
Different Churches, Chapels and Synagogues	2,481

PRUSSIAN ARMY IN 1820.	
Royal Guard	17,908 men
Infantry of the Line	104,712
Cavalry	19,132
Artillery	15,718
Gendarmes	7,050
Landwehr	523,768
Total	164,520
Officers	7,405
Generals	82
Colonels	21
Lieutenant-Colonels	247
Majors	655
Captains	1,675
Lieutenants	1,370
Sub-Lieutenants	3,355
Sum total	513,173

POMERANIA.

<i>Different Nations.</i>	
Germans	640,000
Wends or Cassubians, who have retained their dialect	86,800
Jews	3,000
<i>Different Sects.</i>	
Protestants	710,000
Catholics	6,798
Mennonites	2
Jews	3,000
<i>Churches and Parishes.</i>	
Lutheran Parishes	519
Calvinistic or Reformed Parishes	7
Catholic Parishes	8
Churches, Chapels and Synagogues	1,357

PROVINCE OF SAXONY.

<i>Different Nations.</i>	
Germans, together with some inhabitants of French extraction, who have long since forgotten their native language, and some <i>Hallores</i> or Wends	1,255,980
Jews	3,240
<i>Different Sects.</i>	
Protestants	1,167,976
Catholics	88,000
Mennonites	4
Jews	3,240
Churches, Chapels and Synagogues	2,776

REVENUE AND EXPENDITURE IN 1821.	
<i>Revenue.</i>	
Domains and Forests	8,406,975 florins.
Sale of Domains	1,500,000
Mines, Forges, Salt and Porcelain ^d	858,000
Post Office	1,200,000
Lotteries	761,700
Monopoly on Salt	5,700,000
Contributions	53,786,775
Extraordinary Receipts	2,786,550
Total	75,000,000
<i>Expenditure.</i>	
Administration of Foreign affairs	900,000 florins.
Church Establishment ^e	3,000,000
Administration of Justice	2,580,000
— of the Interior, Police, &c.	3,450,450
— of Commerce	2,361,000
War department	34,206,450
Financial department	400,150
Treasury	1,739,625
Interest and Extinguishment of the National Debt	15,222,500
Pensions	4,050,000
Expenses of the Home Department ^f	3,750,000
Various extraordinary expenses	3,339,825
Total	75,000,000

The national debt amounts to 412,500,000 florins; part of it is redeemed every year.

Note.—A florin is equal in value to two shillings.^g

^a Seminaries for schoolmasters.
^b Those in Lusatia retain their language.
^c Such is the statement in the original; but qu. 3. According to Hassel (1822,) there are only 6 universities in the whole Prussian monarchy, and of these only one, that of Halle, is situated in the province of Saxony. Busching mentions only 3 universities in the territories, now included in that province, viz. Halle, Wittemberg and Erfurt. The two latter are

now suppressed. Perhaps the word university is here intended to include other seminaries, not strictly entitled to that name.—P.
^d Mines, salt-works, and royal manufactories. (Hassel.)
^e Department of religion and public instruction. (Hassel.)
^f "Administration intérieure"—Provincial administration. (Hassel.)
^g "2 francs." The Prussian florin is equal in value to 2s. 4d.—Ed. Encyc.

BOOK CXVIII.*

EUROPE.

Europe Continued—Agricultural Produce of the Maritime Provinces in Prussia—Peasants—Mortgages—Landed Estates—Method of Husbandry—Restrictions on the Foreign Corn-trade—Depreciation of Landed Property.

THE information contained in this chapter, has been wholly derived from the reports of Mr. Jacob, a late and very intelligent writer on the agriculture of Prussia.

The observations of Mr. Jacob are confined to the three maritime provinces. As it was the special object of his instructions to inquire into the state of the countries from which corn had been exported to England, his attention was chiefly directed to the state of these provinces, and also, but in a less degree, to that of Brandenburg. The three provinces, which communicate with the Baltic sea, and which, since the conventional partitions at the end of the last war, form part of the Prussian dominions, are West Prussia, East Prussia and Pomerania. All of them, as has been already remarked, are a portion of that vast and sandy plain, which extends from the shores of Holland to the extremity of Asiatic Russia.^a The heights are too insignificant to merit the appellation of hills, and such places as are not covered with wood, are large and open plains. The soil in some places consists of barren sand, exhibiting no appearance of vegetation, in many parts no attempt at cultivation, and what is cultivated seems to yield but scanty returns. It is not then extraordinary that the landed property in these provinces should have fallen so much in value; both because they cannot be compared with the other parts of the Prussian monarchy, where the soil and climate are much more favourable to production, and because it is an admitted truth, and one on which Mr. Jacob insists, that under a great depreciation in the price of corn, the poorer lands are subject to a greater proportionate fall in their sale price than the more fertile soils.

It appears from official accounts that 447,183 quarters of wheat, and 1,218,916 quarters of rye, barley and oats, have been exported from them, independently of their own produce,^b during the nine years previous to the end of 1824. It ought also to be mentioned that the returns are wanting for East Prussia in 1818, but it is probable they were not more than 350,000 quarters of wheat, and 340,000 of other grains.

It is likely that some portion of the quantity may have been produced in the inland and contiguous provinces of Posen, Silesia and Brandenburg, for the trade in corn between one province and another is free in Prussia, and because no official accounts are kept from which it can be

ascertained whether what is exported by sea is the produce of the province from which it is shipped.

It has already been remarked that the landed estates in Prussia, as well as in some other parts of Europe, remained until a recent period in the possession of large proprietors. The plebeian who had acquired a fortune by his own exertions in any department of industry, whatever wealth he might have amassed, could not invest it in land until he had been ennobled. It was only in the year 1811 that these restrictions were removed, when the French had invaded and conquered the country.

It appears from other writings, as well as from Mr. Jacob's report, that a tenantry, in the sense of the term as it is used in some countries, is still almost unknown. The land, it may be repeated, was worked by a class of persons in some respects slaves, in reality but little removed from that condition. It is certain however that they had in many cases a kind of hereditary right to some use of the land, such as to grow one crop of corn according to a prescribed course, whilst the lord or proprietor had the right of pasture between the crops. They could not on the other hand be dismissed from their holdings, nor had the superior any right over the property, which they might be able to accumulate. The conditions upon which the peasants held their portions of land, were very various, some having a greater, and others a less share in the use of them, some performing greater, and others less service for them.^c

By a series of legislative measures, that were passed between the years 1807 and 1811, servitude was abolished; all the once enslaved peasants are now changed into freemen and freeholders. The lands allotted to the peasantry were divided according to the proprietor's claims for personal services; in some few instances, they have been equally portioned, the peasant possessing his moiety in perpetuity; on the other hand, if the lord's claims were less limited, the peasant had a smaller share in the land. Examples are not wanting in which compensations in money were settled by agreement between the nobles and the peasants. These bargains were concluded in different ways, sometimes by the payment of a fixed sum, or more frequently by security over the land granted to the new proprietor. Some of the peasants retained all the land that they had formerly used, by purchasing that portion from their lords, to which they were not entitled by the new enactments.

Different opinions were entertained as to the policy of liberating the husbandmen, and of the laws in their favour.

* The whole of this Book has been added by the translator.

^a Qu. the western extremity of Asiatic Russia.—P.

^b Qu. consumption.—P.

^c Jacob's Report, page 29.

Many believed their condition was rendered worse, others affirmed that freedom could be of little use to that class of the community, but, on the contrary, might deprive them of many advantages which they formerly enjoyed. While the lords were compelled to obey the laws, the peasants were allowed the liberty of choice, and even now some prefer their ancient servitude to present liberty.

It is not to be doubted that these enactments form the commencement of a new and better system; at the same time, it must exist longer than it has done, before the improvement can be effected. The peasants passed from a state of slavery to freedom; the nobles were before entitled to their services, and these services were as much their property as any part of their estates; but as the relation between a lord and his slave is very different from that between an ordinary master and his hired servant, some time must elapse, before both parties can be accustomed to the change, although its beneficial effects must one day be apparent.

The above remarks are confirmed by the observations of Mr. Jacob. It is obvious, says he, that all the operations of agriculture are still performed with a listlessness and slovenly indolence, which was natural to the former character of the labourers, and which their new condition has not yet had time to remove.

The labourers who can now acquire land by the abolition of ancient feudal tenures, although placed above the pressure of want, or possessing the bare necessities of life, have very little beyond them. Such as are industrious and frugal, by cultivating their small portion of ground, may raise a sufficient quantity of potatoes for their own consumption, corn for their bread, and provisions for two draught oxen. They all raise a small quantity of flax, and some few contrive to keep five or six sheep. It is often no easy matter for those to find occupation, who are desirous of other employment in addition to the cultivation of their own land, for no agricultural labour can be carried on during the long and severe winters. The flax and the wool spun in the cottage, supply the family with clothing, and the fat of the animals that are killed, are converted into soap and candles. It is rare indeed that the inmates can afford to have meat of any kind, and those only who are more prosperous than their neighbours can keep a cow to provide themselves with milk.

Thus whatever is produced, is consumed by the family, and it is fortunate if at the end of the year, a few shillings can be saved to meet the demands of the tax-gatherer, or to pay local assessments. It is the opinion, says Mr. Jacob, of all with whom I conversed on the subject, that this class of men are at present in a worse condition than under the old tenures, and as it was attributed to the depression of agriculture, the want of capital, and the little encouragement given to the great landed proprietors, those who had been favourable to the new enactments, were not blamed, nor was that wisdom called in question by which the emancipation of the peasantry was planned and executed.

The rate of wages is very low; it is certain that it does not average more, if so much, as fivepence a-day, yet the condition of a labourer in constant employment, with a cottage and potatoe ground, is admitted to be much superior to that of the peasant, who was recently raised from a state of feudal vassalage to freedom. The labourers that are boarded in the houses of their masters, have a sufficient

quantity of coarse food, such as rye bread, potatoes and buckwheat, and sometimes, though rarely, animal food.

It was not before the abolition of the feudal tenures that it was found necessary to relieve the aged and infirm poor. It had been in past times, the duty of every noble to supply the wants of his peasants, if they were worn out by age or sickness, and if their relatives were unable to afford them any assistance. A regular system of taxation for the poor has not yet been introduced, but the first steps towards it have been already taken; assessments too are levied for the widows and children of the men who fell in the late conflicts, as well as for such as were disabled in the service.^a

It is calculated that four fifths of the inhabitants in these provinces subsist wholly by producing food. The luxuries they enjoy must therefore depend on the price given for the surplus produce, but that price has been constantly falling of late years, and consequently the comforts and conveniences of the people must be proportionally affected; in other words, their manner of life must be regulated by what is exchanged for the produce of their industry. If that rule be adopted, it follows that many individuals in these countries can command little if anything beyond the mere necessities of existence.

The land is divided among two classes, the nobles and the new proprietors of large estates, the rest is parcelled into small portions, such as under the ancient system, were thought adequate for half the maintenance of a labourer's family. The absence of a middle class between the peasants and the landlords is to be regretted. Mr. Jacob looked in vain for that class of farmers, so common in his own country, with sufficient capital to enable them to farm such an extent of land, as an able man can most advantageously manage, and after stocking and working it, pay rent to the proprietor. With very few exceptions no rent is paid, and almost every proprietor, whether a large or a small one, cultivates his own land.

The exceptions to the general rule are mostly to be observed on the banks of large rivers, or in the neighbourhood of cities; meadows and pasture lands are there set apart for feeding cattle, or hay is grown for the supply of the towns. Some meadows on the banks of the Oder near Stettin, which are let for fifteen or twenty shillings an acre, are said to yield, when mowed, about two tons of hay. The after-feed, as may be easily supposed, is worth little, and the cause is to be attributed to the nature of the climate, the great rains in autumn, and the early and severe frosts in winter. Land of this description is of less relative value than in France or England, from the severe cold and long duration of winter, the want of spring, the drought and excessive heat of summer.^b If a monied rent is paid for such land, it is owing to its local advantages, and its extent, it is obvious, is very inconsiderable, when compared with the land that is cultivated by proprietors.

The crown domains, of which some account has been already given, ought not to be confounded with the other estates. The most of them were possessed by persons whose ancestors had held them from the crown at low rents, and who were exempt from the land tax or *Grund Steuer*. According to the new laws, not only the estates of nobles, but those of the crown, are subject to the land tax. It appears too that when these laws were passed, the high price given for corn, enabled the tenants of the crown to pay their trifling, almost nominal rent, as well as the land tax.

^a Jacob's Report, p. 45.

^b Jacob's First Report, p. 31.

At no distant period afterwards, the price of corn fell, and the tenants were unable to pay both the one and the other. The exigencies of the state rendered it imperative that the taxes should be levied, and the rents were consequently suffered to run in arrear, as it was impossible to obtain it from the tenants. It was proved not only by those with whom Mr. Jacob conversed, intelligent men, possessed of ample means of information on the subject, but also by different documents, which the same writer has collected, that by far the greater number of the tenants on the royal domains, whose rents had run ten years in arrear, were forgiven the whole, and the mutual obligations cancelled on their promising to pay regularly in future,—a promise, it is believed, they are unable to fulfil, from the great and additional fall that has since taken place in the price of corn.

It is difficult to estimate the average rent of the royal domains; the qualities of the soil are so various, and the localities so different, relatively to their advantages, that it is almost impossible to arrive at a correct approximation. One farm, that is considered fair average land, consists of 1720 acres, and is let at the annual rent of £158, 12s. 7d. Another, supposed to consist of the best soil, and equal in extent to 3054 acres, is let for £552, 11s. 8d. Other farms are let as high as three shilling and eightpence per acre, a much larger proportion at one shilling and twopence, and a greater still at eightpence or ninepence.

The extent of the royal domains in West Prussia bears out a very small proportion to that of the other lands, certainly not more, if so much, as a sixtieth part.

Most of the estates belonging formerly to the nobles, and only capable of being possessed by that body, might be considered inalienable. The necessity of relieving the embarrassed proprietors, led government to devise a plan by which money could be borrowed on the security of land, and the privilege which was at first confined to the estates of the nobility, was afterwards extended to other landed property.

The *Landschaft*, a local assembly consisting of the principal proprietors, were instructed to make a valuation of the estates that were to be mortgaged, and to issue *pfandbriefe* or mortgage debentures, bearing interest and transferable with little trouble and expense; on such securities one half, and in some instances six tenths of the *landschaft's* valuation was easily borrowed. The lands indeed were valued upon a low scale of the prices of produce, and upon a low estimate of the quantity of produce that might be raised on them. As there were no government funds in the country, or at all events none in which the public had much confidence, it was natural to expect that such sums as were not intended to be exposed to the fluctuations of commerce would be deposited in the new securities, and indeed the fortunes of widows and orphans, the capitals of churches, schools, hospitals and other benevolent institutions were invested in them. The valuations were made in 1794, and as the price of produce rose gradually, the debt was not considered burdensome, and the interest was regularly paid by the different proprietors; so great was the confidence in the security, that these debentures were frequently sold at a premium of ten per cent.

But for the last ten years the price of every kind of corn except wheat, the one that is least cultivated, has fallen below that at which the valuation was made in 1794, and during the same period, the price of labour has risen, and additional taxes have been levied. Hence it happens that

many proprietors, who for the first twenty years could easily discharge the demands on their estates, are now unable to do so.

It appears indeed that out of 262 estates subject to the *Landschaft's* jurisdiction, 195 are encumbered, whilst 67 only are free from encumbrances. Of the 195 estates, 71 were afterwards put into a state of sequestration, a remedy to which the mortgagees never have recourse but in cases of extremity. It is certain too that many other estates have been suffered to remain in the hands of the nominal proprietors, because the interest of the money lent on them ceases as soon as the process of sequestration is commenced, and because they cannot be sold for the sum that has been advanced on them. It is also well known that the sequestered estates are very carelessly managed by the officers of government.

It may be inferred from what has been already mentioned, that the price of land is at present very low in the maritime provinces. It is stated that an estate of medium soil was put up to auction, and not bringing an offer equal to the sum mortgaged, was purchased by the mortgagee. The extent was about 4200 English acres; the soil light and sandy, and, in some places, approaching to loam. The principal and interest due to the mortgagee amounted to £3000, for which sum the property was sold. Another estate, one of the best in the district, with all the buildings in good repair, and the land in a high state of cultivation, was exposed to sale, and purchased for £5200. The soil is of a good sandy loam, and the extent not less than 2800 acres.

These two instances are mentioned in Mr. Jacob's report, to show the highest and the lowest prices given for average arable land in these provinces. It may be concluded, then, that the highest price is less than forty shillings an acre, and the lowest nearly equal to fifteen.

It may be seen from official documents, that the provinces of East Prussia, West Prussia, and Pomerania, the latter including the late Swedish territory of the same name, contain about 25,500,000 acres, or more than half the extent of England. It appears, also, from an official account published in the year 1821, that the stock of cattle were as follow, at the end of 1819.

556,839 horses and colts.
1,171,434 oxen, cows, and calves.
2,049,801 sheep and lambs.
617,310 swine.

According to the lowest estimate relative to the stock of cattle in England, there are more than three times the number of horses, and upwards of four times the number of oxen and sheep in the same extent of land. Several authors, who have written on English statistics, suppose that the proportion of cattle to surface is much greater in England. It is probable, however, that the sheep have increased in the Prussian provinces between the years 1818 and 1824 at the rate of twenty-five per cent. and that the finer sort of sheep have increased in a still greater ratio. It is evident, however, that the number of cattle of every description, is too inconsiderable to produce such a quantity of that necessary ingredient in husbandry, as to keep the land above its present standard of fertility; and it is also obvious that, owing to the deficient stock of the animals from which manure is obtained, the increase of grain can-

not be great. I was satisfied, adds Mr. Jacob, from my own observations, and it was strengthened by the opinion of intelligent natives, with whom I conversed, that much of the land in cultivation could not yield on an average more than three times as much corn as the seed that had been put into the ground.

If it were necessary that the above statement should be still further confirmed, it might be shown, that the latest and most approved statistical writers do not consider the average returns of all the four kinds of grain, or wheat, barley, rye and oats, to be more than four times the seed.

The general course of cultivation is to fallow every third year, by ploughing three times, if intended for rye, and five times for wheat; the land being allowed to rest the whole of the year, from one autumn to another. It is admitted, that a great portion of the soil is supposed to be unfit for the growth of wheat; the part which is adapted for that grain is sown with it, if a sufficient quantity of manure can be obtained, and the remainder of the fallow ground with rye. The extent of the land sown with wheat, is thus very small; according to the opinion of many, it does not amount to one tenth of that on which rye is grown. The last grain is an article of domestic consumption and general demand. The great majority of the inhabitants cannot afford to eat wheaten bread, and the few that can do so, commonly eat rye from choice. If there be no foreign demand for wheat, the difficulty of selling it at any price is very great, and the little, which the limited demand of other countries has of late years required, is only confined to wheat of the best quality. Rye, on the other hand, may be always sold at a market price, which has never been in proportion so much depressed as that of wheat. The increase of wheat, it may be urged, is greater than that of rye, but as it exhausts all the manure of the farm, and as the land requires two additional ploughings, many farmers consider it not so profitable a crop as the other. The rye too receives the full benefit of the fallow, and its increase is greater than that of the spring crops, which succeed it.

After the wheat or rye is harvested; oats or barley are sown in the succeeding spring. This rotation completes the course, which is again succeeded by a whole year's fallow, so that the land only bears corn two years out of every three, and the soil is so poor, that the last crop is considered a good one if it yields three times the seed.

The implements of husbandry correspond with the state of agriculture, and the nature of the soil. The land is so light that it may be easily ploughed by two small and weak oxen. Travellers have not unfrequently observed on the lands of the peasantry, a single cow attached to the plough, and while the plough was guided by the owner, the cow was led by his wife. The more tenacious soils, it is true, require a greater number of oxen; and there is an extensive tract of land in the Delta formed by the Nogat and the Vistula between Derschau and Marienburg, which under a good system of agriculture, might be highly productive. Other districts of the same description might be enumerated, but all of them are inconsiderable, when compared with the surface of the country. The ploughs are all constructed with very little iron in them. The harrows are made of wood, and the teeth are of the same materials; no iron can be observed in any part of them. The wagons are mere planks, laid loose on the frame, and supported on pieces of timber fixed into the sides. The cattle

are attached to them by ropes, leather harness is nowhere to be seen. The use of the roller is unknown, and, in preparing the fallow ground, the clods are broken to pieces with wooden mallets.^a

The monied value of the live stock on the farms is low. The best flocks of Merino sheep, exclusive of the wool, do not bring more than six shillings or six shillings and eight-pence a head. Cows are worth from thirty to sixty-five shillings. The variation in the price of cows is much greater than in that of sheep; and it depends on their breed, the soil on which they are pastured, and the distance from towns requiring supplies of milk and butter. The price of hay varies according to the situation and quality from fourteen to twenty shillings the ton.

A nobleman whose hospitality Mr. Jacob commends, farmed his own estate of 26,000 acres. Two thirds of it are arable, and the remaining part woodland. That individual grew only a few acres of wheat, and of late had sold no corn of any kind. As the ports of England were shut against corn, his attention was directed to raising fine wool. He kept on his estate a flock of 15,000 Merino sheep, yielding on an average two and a half pounds of fine wool, of which the annual sales amounted to one half more than the value of the sheep. During the five winter months, the sheep were fed with corn, mostly rye, at the rate of one pound per day, which was estimated to be equal to three pounds of hay. The proprietor believed that sheep thus kept, afforded nearly as much more wool, which, added to the benefit that the manure received from that kind of food, was equal to the price he should have received for the corn, if he had sold it; and the profit of his system consisted in the value of the whole stock of his hay, which must have otherwise been consumed. Instead of selling, he found it more profitable to purchase corn.

A distillery is an indispensable adjunct to every well managed farm. It is maintained in the country that two bushels of potatoes yield as much ardent spirits as one of barley. The residuum is supposed to be equivalent as nourishment for the draft bullocks that are fed with it, to two thirds of the quantity before the wort is extracted. According to the process, nine bushels of potatoes are mixed with one of malt to draw the wort, which is afterwards distilled so as to produce a spirit containing eighty per cent. of alcohol; in this state a duty is exacted, that is considered a very grievous one, of sixpence per gallon. Before it is sold, it is reduced to fifty per cent., and the price charged to the retailers is about fourteenpence a gallon.

Potatoes are cultivated to a great extent, and by converting them into starch and treacle, that land is made to yield a profit, which might otherwise have produced a loss. One proprietor tried to make sugar from potatoes, but did not find it advantageous; he converted them however into treacle, which he could afford to sell at eighteen shillings per cwt. while that from the West Indies cost twenty-four. This treacle, says Mr. Jacob, appeared to me as sweet as any from the tropics; the only perceptible difference between them, was that it had less consistence.

The different taxes, in as much as they affect the landed proprietor or farmer, may be shortly mentioned.

The land is divided into six sorts, the rent of the lowest is valued about sevenpence, and that of the highest at nearly four shillings an acre. The land tax or *Grund*

^a Jacob's Report, p. 47.

Steuer amounts to twenty-five per cent. on these valuations, or to a fourth part of the estimated rents. It averages something less than threepence an acre, and according to Hassel, the whole sum collected in the three provinces, is about £265,000.

The other taxes are not exclusively borne by the proprietors; that for disabled soldiers and the widows and orphans of those who fell in battle, are partly collected in the towns and burghs, but the great burden falls upon the land. The same remark is applicable to the taxes for roads, bridges, schools and the poor. They are very different in different districts; in some parts of the country, the local taxes are equal to the *Grund Steuer*, in some they are greater, and in others they are less, not amounting to a tenth part of it.

The cultivators complain greatly of the heavy tax on distilleries. But it is doubtful if the effect of the tax tends to diminish the consumption of the grain, from which spirits may be extracted. It is not unreasonable to suppose from the mode in which the tax is levied, that the landlords are benefited by it; for those who have distilleries on their estates, pay the duty on very strong spirits, and sell it to the retailers after it has been reduced.

The other taxes bear no more on those engaged in agriculture, than on the other members of the community. They are chiefly imposed on the consumption of foreign commodities, and paid by the consumers, from whatever source they may draw the revenue, from which they are enabled to indulge in the use of them.

If the public burdens be estimated by the number of inhabitants, it is calculated that each individual in these provinces pays about ten shillings annually in the form of taxes.

It has been attempted of late years to establish manufactories in the maritime provinces; the chief inducement was the cheapness of provisions, and consequently the low price of labour. These attempts however have been made on a small scale, and they have not hitherto been attended with success; but it is not very improbable, if the restrictive system continue, that a new branch of industry may in time be created, for which the nature and situation of the country, as well as the habits of the people are ill adapted.

We shall conclude these remarks by quoting part of a memoir, that has been extensively circulated among the land-owners in Prussia.

"The prevailing opinion that the production of corn in all countries greatly exceeds the consumption, or that immense quantities are hoarded up in different granaries, is altogether erroneous. The notion of a vast abundance is imaginary for the following reasons:

"1. Because agriculture has been extended in those countries, which obtained formerly from the north the deficiency required for the subsistence of their inhabitants, and of late years several harvests have been rich and abundant.

"2. Because the corn traders in the corn countries have almost ceased to exist in that capacity; and the few that remain, are anxious to dispose of their stock, and have their corn partly stored in foreign countries.

"3. The quantities in the hands of the farmers are very insignificant. The stock hoarded up formerly by the corn traders and farmers, was much greater, perhaps five times as much as it is at present. The impoverished condition to which the great corn factors in all the northern sea-ports

have been reduced, and the scarcity of money with almost all the farmers, has rendered the accumulation of large quantities of corn, impossible; and besides, the bad quality of the grain for some years past, did not even allow it. It is a difficult task, nay perhaps impracticable to give an accurate estimate of the surplus quantities of corn in all the countries of Europe. But according to a calculation which seems not widely distant from the truth, the grain accumulated in Europe, including wheat, rye, barley and oats, amounts to three millions six hundred and eighty thousand quarters; namely,

	<i>Quarters.</i>
In Germany, exclusive of the Prussian dominions	581,000
Prussian dominions	775,000
Poland and Russia	581,000
Denmark	194,000
England	580,000
The Netherlands	388,000
France, Spain, Portugal and the Ports of the Black Sea	581,000
	3,680,000

"The bonded corn in England, which amounts to about four hundred thousand quarters, is included in this statement. All these quantities, however, are insufficient to supply a great deficiency in the crop of one large country, nor does it even amount to a fourth part of what is necessary for the subsistence of its inhabitants. That the above mentioned surplus may hereafter be increased, is indeed very improbable, for the consumption of men and cattle is annually increasing, while the production of corn is diminishing. The corn at present under bond in England, is not equal to the thirtieth part of its annual consumption, and the whole surplus quantity in Europe, is not sufficient to supply the inhabitants of France with bread for a single month.

"It is obvious, if the corn trade were free every where, the prices would be higher, at least they were so in former years, when the accumulation was probably five times greater than it is at present. But many years must elapse before that trade can be free, and it is therefore incumbent on us to take every means for averting the present distress without delay. Whether, and how far the following plan might promote the end proposed, is left for the public to judge.

"From the system of erecting granaries, as proposed some time ago, little benefit can be expected, for reasons which have been already sufficiently examined. If this plan were adopted, it might tend to strengthen the opinion entertained by foreigners, that large quantities of grain have been accumulated in the country, an error that has been very detrimental to us. The exportation of flour to South America is as yet too inconsiderable to affect beneficially the prices. It is therefore the opinion of the author of this memoir, that it is only by the annihilation of very considerable quantities of grain, that the prices can be raised; and, situated as we are, it can be effected in no other way than by an increased consumption of our agricultural produce.

"It was only now and then that an agriculturist found it profitable to feed his finest flocks with part of his corn. When the price of wool however rose considerably, the advantage of feeding with corn became obvious, and the system was found to remunerate, for wool has risen from thirty to thirty-three per cent. The feeding with grain may thus be continued on an extensive scale, and it may surely deserve consideration as being an effectual means of raising the price of corn.

“The well known political causes that have given rise to a greater consumption of wool, lead us to believe that the present high prices may maintain themselves still longer. It is true that the same causes must effect an increase in the production of wool; this, however, from the steps of nature itself, can be done but gradually; and as it is a well known rule, founded on experience in rural economy, that a sheep, when allowed, in the winter season, besides the ordinary food of hay, straw, &c. an extra supply from eighty-five to ninety-six pounds weight of corn, yields from half to three quarters of a pound, and sometimes more wool, it follows that the feeding of a hundred sheep with a hundred and fifty-five bushels of rye would by this means yield an increase in the produce of wool of seventy-one pounds weight at least.

“By this system the following prices might be obtained for the bushel of rye; namely—

1s. 11d. if wool brings 4s. 2½d. the pound weight.

1s. 3½d. 2s. 10½d.

And 1s. 0d. 2s. 2d.

“To this must be added the profits arising from fattening the animal itself and which are by no means inconsi-

derable. They may be estimated at three shillings on each sheep, and as those destined for the butcher market form generally the fourth part of the flock, another sixpence may be added to the price of the bushel of corn.

“The number of fine woolled sheep in Germany is not less than eight, and perhaps not more than ten millions. Prussia alone contains at least four millions; and if only half that number be fed on corn, all the surplus quantity that is complained of as an encumbrance might be at once annihilated, and a considerable rise in the price of corn would finally take place. This measure might perhaps have an influence on foreign countries, as our surplus corn could then be no longer an object of consideration with them.

“It is not to be apprehended, that this substantial food would lower the price of wool; the increase of wool would amount to no more than two or three millions of pounds weight, while the consumption of England and France is actually forty millions of pounds weight at least. Besides, the higher price of corn being a consequence of this system, might then counterbalance any deficit in the price of wool, which may arise from the greater production of that article.”

TABLES.^a

An account of the quantities of Wheat, Rye, Barley, Oats, Beans and Peas, exported from East Prussia, West Prussia and Pomerania, from the year 1816 to the commencement of 1825.

	1816.	Barley, Rye, Oats.	1817.	Barley, Rye, Oats, &c.
EAST PRUSSIA.				
Exported from Königsberg	Quarters. 51,172	Quarters. 121,150	Quarters. 60,065	Quarters. 316,557
Pillau and Memel	2,871	13,853	6,815	
	57,043	165,003	75,880	413,683
WEST PRUSSIA.				
From Dantzig	140,199	59,815	231,669	172,003
Elbing	37,357	23,808	52,382	91,779
	177,556	83,623	284,051	263,782
POMERANIA.				
From Stettin	1,693	2,302	15,381	9,079
	To Sweden 1018	To Holland and England.	To Great Britain 14,978	To Great Britain
Other ports of Pomerania	Holland 657		Sweden 209	Spain 592
	30,167	84,151	37,928	115,057
	31,860	86,453	53,317	124,136
Total exportation	266,459	335,081	413,248	801,601

	1818.		1819.	
EAST PRUSSIA.				
From Königsberg	No Returns		12,793	157,151
Pillau and Memel			613	54,715
			13,411	211,866
WEST PRUSSIA.				
Dantzig	294,986	94,441	84,747	72,867
Elbing	58,485	89,559	15,155	65,532
	353,471	184,000	99,902	138,399
POMERANIA.				
Stettin	98,640	33,745	5,594	53,652
	To Great Britain	Great Britain	To Great Britain	Great Britain
Other ports of Pomerania	36,343	82,872	36,148	91,241
	134,983	116,617	41,742	144,893
Total exportation			155,055	495,158

	1820.	Barley, Rye, Oats.	1821.	Beans, Peas, &c.
EAST PRUSSIA.				
Exported from Königsberg	Quarters. 39,954	Quarters. 160,429	Quarters. 16,676	Quarters. 39,371
Pillau and Memel	5,369	82,651	565	7,295
	45,323	243,080	17,241	37,576
WEST PRUSSIA.				
Dantzig	323,917	49,155	166,855	18,885
Elbing	37,581	47,912	18,963	8,300
	361,498	97,067	185,818	27,185
POMERANIA.				
From Stettin	5,957	6,277	1,228	8,272
	To Great Britain	Great Britain	No Returns	No Returns
Other ports in Pomerania	51,966	86,716	40,553	80,211
	57,923	92,993	41,781	88,483
Total exportation	461,744	433,140	194,840	153,244

	1822.		1823.	
EAST PRUSSIA.				
Exported from Königsberg	9,603	7,550	4,689	15,148
Pillau and Memel	1,174		38	2,046
	10,777	7,550	4,727	17,194
WEST PRUSSIA.				
Dantzig		316	57,281	61,981
Elbing	18,098	5,618	12,571	20,001
	18,098	5,934	69,852	81,982
POMERANIA.				
Stettin	2,413	4,924	167	5,622
	Great Britain 918	To Great Britain	To Great Britain	Great Britain
Other ports in Pomerania	47,028	61,894	46,946	49,965
	49,441	66,818	47,113	55,587
Total exportation	78,316	80,302	121,692	154,163

^a The above Tables are taken from Mr. Jacob's First Report.

BOOK CXIX.

EUROPE.

Europe Continued—Description of Germany—Third Section—Grand Duchies of Mecklenburg and Oldenburg—Kingdom of Hanover.

THE countries that are now to be described, are not perhaps calculated to excite the same interest as others of more importance in the political balance of Europe—the opposite weights on which its equilibrium depends. Since we left the dominions of that colossal power, which may in time dictate laws to Europe, and perhaps to the world, we have examined countries more or less subject to its influence. That region which is still known by the name of Poland, and which still retains the title of kingdom,^a is nothing more than a dependence on Russia. Prussia, too, from its point of contact with the same formidable neighbour, must be, in many respects, a secondary power. How much more insignificant then are the principalities of Mecklenburg and Oldenburg, or even the kingdom of Hanover, likely to appear, when contrasted with the Russian empire? But if these petty states, and others that shall be afterwards mentioned, are of little or no importance in a political point of view, it cannot be denied that their inhabitants ought to be better governed, and therefore happier than others, scattered over an immense extent of territory. If their princes are less involved in the policy of foreign states, if cabinet and court intrigues are less frequent, they are better able to discover the wants of their subjects, propose wise laws, and found useful institutions.

Mecklenburg forms two grand duchies, the one of Schwerin, and the other of Strelitz; they are governed by two branches of the same family. The country which is divided into these two principalities, is bounded on the south by Hanover and the Prussian province of Brandenburg; on the east by a part of the same province, and Pomerania; on the north by the Baltic; and lastly, on the west by Holstein. Its population amounts to 475,500 inhabitants, and the superficial extent of the country to 260 German square miles; consequently, the average number of individuals for every German square mile, is equal to 1828.

It is probable that the most ancient inhabitants of the country formed a part of that Scandinavian race, known in Europe during the middle ages by the name of Vandals. When these northern tribes invaded and conquered the countries that were subject to the degenerate Romans, the Vandals, who inhabited Mecklenburg, abandoned that territory, which was soon occupied by several Wendish or Slavonic tribes; but in a short time the *Obotriti* remained the only masters of the country.

^a Poland under the old government was styled a republic. It was in truth an aristocratic confederacy, with an elective head, styled the king of Poland.—P.

^b J. Bower, de Reg. et Reb. gestis ducum Meckl. Albert Glantz, Historia Vandal. F. W. Crome, Geographisch-statistische Darstellung, &c.

If certain authors may be credited, the family of the dukes of Mecklenburg must be very ancient.^b ^c According to the opinion of some of them, that family is descended from Genseric, king of the Vandals, who devastated Rome in the year 455 of the Christian era. Others believe it to have been founded by Wislas or Wisilas, king of the Heruli, the ancestor of Mistew^d the Second, surnamed the *Strong*. We may, therefore, without making the antiquity of the family greater than it is, suppose that it existed in the time of Charlemagne. Mistew the Second died about the year 1025. It has been maintained by some antiquarians that he was baptized, but that assumption is not very probable. Godsfal, the son of Endes, was in all likelihood the first Christian of the family; he was honoured with the double title of the martyr and apostle of his subjects, and it is supposed that he founded the bishopric of Schwerin. Whether he did so or not, may be considered uncertain, but it must be admitted that his example was not followed by his successor,^e since Pribislaus, who took the title of king of the *Obotriti*, was converted by Albert the Bear in the year 1151. Policy, not conviction, appears to have been the cause of his conversion. Expelled from his states by Henry the Lion, duke of Bavaria and Saxony, he did not return until after his baptism. At the same time he renounced the title of king, and assumed that of prince of Mecklenburg, which his successors have retained.

Some of these princes may be briefly mentioned: John, surnamed the Younger, founded the University of Rostock in 1419; John Albert, who died in 1576, established the Protestant religion in his dominions; lastly, Adolphus Frederick was dethroned in 1628 by the Emperor Ferdinand II., for having united with the enemies of the house of Austria; his states were ceded to Wallenstein. The emperor restored him to his protection after the peace of Prague, but not until the king of Sweden had placed him again on the throne. He was the father of the two princes, Frederick and Adolphus Frederick II., the chiefs of the two branches of the Mecklenburg family. These princes, after the death of their father, divided his dominions. The first founded the house of Schwerin, the second that of Strelitz. The two principalities have ever since remained separate; in the year 1808, they were included in the confederation of the Rhine, but it was not before 1815, that the princes took the titles of grand dukes.

Mecklenburg consists of a large sandy plain, in the midst of which are forests and lakes; the latter are indeed more numerous than the towns; all of them abound in fish, and

^c “—the Dukes of Mecklenburg belong to the oldest reigning family in Europe.”

^d Mistew.—*Moreri*.

^e The translator makes Pribislaus his successor—I have followed the original. The order of succession in *Moreri* is as follows: Godsfal, Balthuens, Nicolot, Pribislaus.—P.

the largest are those of Plau, Malchin, Müritz, Klummerow, Schwerin, Schaal, Koelpin, Ratzeburg, Tollen, and Petersdorf. Some hills rise in the midst of these plains. Of these, Ruhnenberg is the highest; its summit is 577 feet above the level of the Baltic sea, according to Hassel, and 641 according to other authorities. Petersil, another hill of less elevation, is situated in the grand dutchy of Strelitz; Hoheburg, a third, rises to the height of 495 feet. The Heilige-Damm or holy dike, a name that indicates perhaps the veneration in which it was held by the early inhabitants, consists of smooth and flat stones of different forms and different colours. It is situated in the neighbourhood of the town of Dobberan, and serves as a barrier against the impetuous sea which breaks upon it. It occupies a surface of more than two miles in length, and about fifteen yards in breadth;^a its height varies from twelve to sixteen feet. The manner in which the different stones are united, excites the admiration of all who observe them. The dike has been considered one of the most ancient religious monuments of the northern tribes. All the stones are polished and joined without cement; one may trace on them different figures, that appear to have some connexion with the Scandinavian mythology.

The siliceous sands of Mecklenburg appear to rest on deposits of chalk, which, as has been already observed, appear without any covering in the island of Rugen. This statement may be confirmed by the great quantity of flint, echinites and other silicified shells, which are thrown on these shores; besides, the chalk is visible in the pits and wells that are dug in the country. Although the sandy soil descends to a very considerable depth, it is not immediately contiguous to the chalk, but separated from it by strata of sand and clay mixed with vegetable remains or lignites,^b in which are imbedded fragments or masses of amber.

The climate of Mecklenburg, though temperate, is rendered moist from the number of lakes and marshes. The inhabitants rear a great many oxen and horses; the latter are valuable on account of their size, strength and swiftness. The agricultural produce is abundant; it consists of potatoes, grain, hemp and hops; excellent crops of hay grow in the extensive and fruitful meadows. It is certain that husbandry has been much improved, and that wastes covered with marshes or sterile sand, have been changed into fertile plains by the hand of man.

The grand dutchy of Mecklenburg-Strelitz is made up of the lands attached to the towns of Friedland, Furstenburg, Weisenburg, the burgh of Mirow, and New Strelitz, the capital. All the rest of the country belongs to the family of Schwerin.

The government, the civil institutions, the distinctions that subsist between the nobles, burgesses and peasants, are not widely different in the two principalities; whatever observations may be made relatively to the one, are not inapplicable to the other; our remarks may, therefore, be confined to the dutchy of Mecklenburg-Schwerin. The right of primogeniture regulates the succession, and the heir is supposed to arrive at majority at the age of eighteen. The younger princes are entitled to appanages,^c and each of the princesses receives a dowry, which has been settled at 20,000 rix-dollars. According to a treaty concluded in the year 1442, between the houses of Mecklenburg and Bran-

denburg, the second family succeeds to the principality after the extinction of the first. It appears from other treaties, of as ancient a date as the year 1572, and which have been often renewed, that the grand duke must share with the nobles, the right of administering justice and imposing taxes.^d Different assemblies watch over the privileges of the different districts. Lastly, the nobles in the two dutchies make up a separate body, which has been called the *old union of the country* (*Alte Landes Union*.)

Three provincial marshals are chosen from the lords, and their office is the highest distinction that can be attained by a hundred and twelve noble families. The marshals form with eight counsellors and the deputy of Rostock, an assembly to which the management of the provinces is committed. Deputies are likewise nominated by the principal towns in the dutchy; they meet every year, and are called together by the grand duke. It is their office to examine contributions, and discuss laws; the latter are presented in writing by the prince. They have also the right to make known the complaints of their constituents, and to insist that abuses may be abolished. Private assemblies of the nobles are held in the towns where justice is administered, but the sovereign must be informed whenever it is deemed necessary to convoke a provincial council. The most of the towns have the privilege of choosing their mayors, but the judges and magistrates are appointed by the prince.

The efforts made by the German princes in 1813, in order that their subjects might shake off a foreign yoke, induced them to make concessions and promises, which must ere long be fulfilled. It cannot be doubted that the many privations and hardships borne by the people, the sacrifices they made, and their heroic conduct, must be partly attributed to the future improvements, privileges and immunities that were held out to them at the time. The dukes of Mecklenburg, more fortunate than other princes, have found no obstacles in fulfilling engagements that are by so much the more sacred, as kings are responsible for abuses, which it is in their power to correct. At the time of the last coalition against France, the dukes of Mecklenburg levied many contributions, and furnished an extraordinary contingent of 1900 troops to the German league. The abolition of servitude was to have been the reward of the most numerous and most oppressed class of the community. There were then some free labourers, but the most of the peasants could not quit the domain to which they belonged without the permission of the proprietors, nor choose a different way of life than that in which they were brought up, nor a different trade than that of their fathers. It was in the power of an unjust master to prevent a peasant from marrying, and he could, as Stein affirms, inflict humiliating punishments on any whom he supposed negligent in performing their task. Thus the peasant was wholly dependent on his lord, and had merely the right of making known his complaints to the provincial tribunal, the legislators supposing it sufficient to allow him the privilege of stating his grievances. Because the proprietor was obliged to maintain him in years of scarcity, to furnish him with medicines and medical advice, when suffering from disease, and to support him, when unable to labour from old age or infirmity, it was argued that his condition was preferable to that of a free peasant, who gained an uncertain subsistence by the sweat of his

^a "Length $\frac{3}{4}$ league—breadth 40 feet."

^b Brown coal, including bituminous and carbonated wood.—P.

^c "— receive appanages in money."

^d "The produce of the taxes is divided between the grand duke and the nobles."

brow. As if the consciousness of submitting to a shameful servitude did not poison all the kindness that a slave expects from his master. Fortunately for Mecklenburg, its princes have been actuated by enlightened views and proper feelings in determining a question in which many conflicting interests were involved. The peasants in that country have enjoyed, since 1820, an invaluable prerogative, individual liberty. The country must one day experience all the advantages of that great improvement; land will be more equally divided, and honest industry may enable those to become proprietors, who were formerly attached to the soil.

It is no longer doubted that the division of land among a numerous class of proprietors, increases the affluence and prosperity of a country.^a The ducal domains in Mecklenburg are not less than four tenths of the whole surface; the nobility possess five tenths, and the remaining tenth is the property of the towns. The peasants cannot as yet acquire land, but contributions, imposts and extraordinary taxes are paid equally by every class of the community. The comparatively small number of inhabitants is to be accounted for by these causes; the two duchies are equal in extent to 720 square leagues, while the population amounts to only 486,000, or on an average for every square league to 675 individuals, a number that might be much more considerable in a country which is in other respects so well governed. It must be observed however that the number of inhabitants was not so great before the year 1820, and that it has constantly augmented since that period. Thus the continued increase in the population results as a necessary consequence, from the abolition of slavery, which, like the harpies in the fable, occasions a pestilence wherever it exists.

The reigning families and the most of the inhabitants in the two duchies are Lutherans, or to speak more correctly, they adhere to the Augsburg confession. The clergy are subject to the jurisdiction of their consistories. The rest of the inhabitants are Calvinists, Catholics and Jews; all of them are allowed the public exercise of their worship; they possess not only churches and synagogues, but there are convents that are now inhabited by the daughters of nobles and burgesses. The purpose of the last institutions has been changed since the reformation; the influence and authority of the bishops have been transferred to the nobles. The Jews obtained all the rights of citizens in 1813, but the children sprung from the marriage of Jewish and Catholic parents must be brought up in the Christian faith.

It is unnecessary to say much of the towns in the grand duchy of Strelitz; indeed there are not any of much importance. Stargard, which is commanded by an old castle, need only be mentioned on account of its potteries and cloth manufactures, for its population is little more than 1000 souls. Friedland contains 4000, but the preparation of tobacco is almost the only branch of industry in which its inhabitants are engaged. New Brandenburg, on the lake of Tollen, is peopled by 5000 souls; its trade consists in spirits, cloth, linen and cotton manufactures. Alt-Strelitz or Old Strelitz is a town of 3000 inhabitants, and many of them are employed in dressing leather, or preparing tobacco. The largest buildings are a workhouse and a lunatic asylum. Neu-Strelitz or New Strelitz, the capital, has been remarked for the regularity with which it is built; all its straight and broad streets terminate in a common centre. It is the seat

of the highest courts in the country; the principal buildings are the ducal palace, a gymnasium, a fine school of arts, and a seminary for the instruction of schoolmasters. The population is estimated at 5300 souls, and its trade consists chiefly in iron, cutlery, and arms.

The towns are larger and more numerous in the grand duchy of Schwerin. Wismar is situated on a gulf of the Baltic, and contains, according to Hassel, 8352 inhabitants. Spacious docks for building ships have been erected, but the other public works are comparatively insignificant. The church of St. Mary is the largest of any in the town, and in it are preserved several relics that are connected with miraculous traditions. Rostock on the Warnow is the most important town in the country; its population amounts to 15,300 souls; the expenses of its university, which still possesses some celebrity, are defrayed by the grand duke and the mayor of the town. Other seminaries of learning might be mentioned, and also a society of natural history that has been long established; several distinguished naturalists are included in the number of its members. The principal buildings are the town house, the mint, the arsenal, the dock-yards, a convent and nine churches; in one of them, that of St. Mary, may be seen an urn in which the heart of the celebrated Grotius is deposited. The town enjoys several important privileges; it fixes the amount of its contributions, and it possesses the right of navigating and fishing on the Warnow, and different immunities which it is unnecessary to specify. The salt water baths at Dobberan, in the neighbourhood of the town, are well known on account of the healing virtue that is attributed to them, and they are perhaps the most commodious and the best built of any in Germany.

Schwerin, formerly Schwelke, contains a population of 10,237 inhabitants; it is situated between two lakes, of which the largest, or the lake of the same name, is upwards of five leagues in length from north to south. Schwerin is divided into the old and new town, the last of which is said to be better built than any other in Mecklenburg, yet there are not many public buildings; several churches, a synagogue, the mint, and an hospital, are all that can be mentioned. The ducal palace is built on an island in the lake of Schwerin. In the interior of the palace is a gallery of valuable paintings, together with a collection of coins and medals, and a cabinet of natural history. The gardens, though visited by strangers, are inferior to those at the castle of Ludwigsburg, a country seat belonging to the duke, about five leagues from Schwerin. Nothing indeed can exceed the beauty of these gardens; they are situated in the midst of a fine country, and planned with great taste after the English manner. The trade of Schwerin consists chiefly in spirits, cloth and tobacco.

The commerce of the grand duchy of Mecklenburg-Schwerin has been gradually increasing; but of all its ports, that of Rostock, or rather of Warnemunde, which is dependent on the town of Rostock, is the most frequented. The number of vessels that enter it every year, amounts nearly to seven hundred. Grain, butter, cheese, tobacco, timber, horses, oxen and swine are the principal exports of the country. It receives oil, tallow and hemp from Russia; wines from France; iron, herring and cod from Sweden; tin, lead, coal and different manufactures from England. Commerce might be much increased in the interior, if the old roads were improved or new ones made, and if canals were opened, by which easy communications might be

^a "—— diffuses the means of comfort and enjoyment through all classes of the community."

formed in every direction, and the labour of cutting them is facilitated by the great number of lakes in the country.

The revenue and military force are very different in the two grand dutchies. Three thousand six hundred troops are maintained by government in Schwerin, and the revenue amounts to 2,400,000 florins. The population of Strelitz does not exceed 76,000 souls, a corps of 700 men is maintained, and the total revenue is not more than 500,000 florins.

It is necessary to traverse Hanover in order to arrive at a petty state, which extends along the left bank of the Lower Weser. The grand dutchy of Holstein-Oldenburg is bounded on the north by the North Sea, on the east by the river that has been already mentioned, and in every other direction by the kingdom of Hanover. The extent of its surface is equal to two hundred and ninety-two square leagues, and the population, according to the last census, which was made in 1822, amounts to 196,100 souls, or on an average to six hundred and seventy-one individuals for every square league; on the whole, therefore, the country is in proportion to its size a little less populous than Mecklenburg. But the grand duke is the sovereign of more states than Oldenburg; he rules over two small and remote principalities. The first, or that of Lubeck, is situated in Holstein, and distant about forty leagues from the town of Oldenburg; the second, or that of Birkenfeld, on the banks of the Nahe, is more than eighty leagues to the south of the same capital. The number of inhabitants in the three states is not less than 240,700 persons, scattered over a surface of three hundred and forty-one square leagues, and as the two principalities are proportionably better peopled than the dutchy, the average term of the population subject to the grand duke is not less than seven hundred and six individuals for every square league.

Little is known concerning the ancient inhabitants; it is agreed, however, that they belonged to the Cimbro-Saxon branch of the Germanic family, which, before the fourth century of the Christian era, possessed the lands near the Elbe, the Rhine and the shores of the North Sea. The *Chemni*^a inhabited the greater part of the territory which now forms the grand dutchy of Oldenburg. The country, it cannot be doubted, was more marshy at that remote period than at present; a great part of it indeed must have been uninhabitable. These ancient tribes of hunters and fishers were mostly collected near the mouth of the Weser, and on the banks of the Jahde.

Sigefroi^b I., the sixth descendant in direct line from Witikind the Great, is mentioned by some authors among the princes of Oldenburg.^c It is certain that Christiern, Count of Oldenburg, was succeeded in the fourteenth century by his son Theodoric, who was surnamed the Fortunate, probably on account of his marriage with Hedwige, the heiress of Sleswick and Holstein. The same prince was the father of Christiern I., who reigned in Denmark, and of Gerard his successor in the county of Oldenburg. Gerard was styled the Warlike, because he frequently made war against Christiern, and endeavoured to obtain possession of the inheritance of his mother. He had the misfortune, however, of being vanquished and made prisoner, not by a warrior like himself, but by Henry of Schwartzenburg, archbishop of Bremen, and bishop of Munster, by whom he was sent

into exile, an event that tended probably to shorten his life: he died in France in the year 1500. In those days there were other causes of offence, and other scandals in the church, besides that of seeing ecclesiastics engaged in war, and sullied with blood on the field of battle. The descendants of Gerard reigned over Oldenburg, but Anthony Gontier, the last of these princes, having died without heirs, his states passed in 1667 into the house of Denmark, from which they were transferred in 1773 to the grand duke Paul, afterwards emperor of Russia; the principality was at the same time erected into a dutchy. Paul ceded the dutchy in 1785 to his cousin Peter Frederick William, a member of the ducal family of Holstein-Gottorp. But the dutchy was annihilated in 1810, and the territory added to the different countries, which made up the new French department of the Mouths of the Weser. Three years afterwards, the prince was enabled by the political changes in Europe to return to his dominions. Lastly, in 1815, the congress of Vienna conferred on him the title of grand duke, and ceded to him the principality of Birkenfeld, which has been already mentioned; the emperor of Russia made over to him, at the same time, the lordship of Jever.

The dutchy of Oldenburg is on the whole a low country, but some heights which extend along the coast, defend it against the encroachments of the sea. The land on the banks of the rivers is rich and fruitful, but the rest of the country is sandy and unproductive. The sand rests, as in Mecklenburg, on a deposit of chalk. The same appearances are observed in the principality of Lubeck; but the soil and the rocks in Birkenfeld are widely different, and much more interesting to the geologist. It is well known that an immense quantity of agates, jaspers and chalcedonies are collected in the neighbourhood of the village of Oberstein; it is also known that the industry of the inhabitants has been directed to the natural wealth of their country, the importance of which shall be afterwards explained. It is sufficient at present to state the conflicting opinions of the best writers concerning the origin of the rocks from which these agates are obtained.

The rocks form extensive hills; they are hard and of a blackish colour; they appear to be similar to those which Haüy designates by the name of *aphanite*; such at least is the opinion of a celebrated geologist.^d But it has been affirmed by a Belgian geologist that these hills are of aqueous origin, and of the transition period, or that which succeeded the granitic formations.^e Humboldt refers them to a still more recent period,—contemporaneous with the red sandstone and porphyry that accompany the vast beds of coal.^f Lastly, Faujas^g and Cordier believe the rocks of Oberstein to be volcanic products. Although it may be difficult to decide amidst so many opposite opinions, all of them supported by distinguished geologists, we are led from the analogy between these rocks and others of a volcanic nature, to attribute to them a common origin.

Some parts of Oldenburg are fruitful in pasturage; the inhabitants rear sheep, oxen and a great many horses, which are almost as much prized as those of Mecklenburg. The most of the peasants keep pigs and geese; the quills and feathers of the latter are exported into different parts of Germany. The climate too is favourable to bees, but it is only in certain parts of the country that they can be kept

^a *Chamae*, Ptol.

^b Siegfried.

^c J. Elvervelt, de Nobil. et Urbibus Holstiae. Petersen, Chron. Holstiae. Moreri's Dictionary, art. Holstein.

^d Daubuisson de Voisin, *Traité de Géognosie*, tom. ii. p. 244.

^e Omalius d'Halloy, *Journal des Mines*, tom. xxiv. pp. 136—141.

^f *Voyages*, tom. i. p. 343.

^g *Voyage Géologique à Oberstein*

with advantage. The most of the interior is ill adapted for agriculture, and covered in many places with heaths and marshes; one may travel for several hours in the south-western districts without seeing a tree or a single habitation. It may thus be easily believed that the grain produced is inadequate to the consumption of the inhabitants. None of the forests are extensive; indeed it might be difficult to supply even the wealthiest classes with fuel, were it not for the facility with which peats may be obtained.^a Among the plants that are cultivated, are hops and flax; the first is used in the numerous breweries; the second in the linen manufactories, that have been erected in different parts of the country. The flocks of sheep constitute not the least portion of the territorial wealth. Their wool is not only used in making cloth, but stocking weavers purchase a great part of it; the commerce produced by that branch of industry is considerable, for the value of the stockings that are made in the districts of Kloppenburg and Vechta, and afterwards exported or sold in the country, amounts every year to more than 100,000 crowns. Humling, the highest district in the country, forms a large sandy heath sufficiently provided with herbage to afford pasture for sheep; the inhabitants have no other riches than their flocks and bees. Their sheep supply them with coarse wool, and their bees yield a great quantity of honey. The peasants quit the high region in the spring, and carry their hives along with them to the low northern plains, where many of the fields are sown with rape. After that plant has been reaped, they transport their bees to the marshy districts in which buck-wheat is cultivated; they remain there until the heath in their own country is covered with flowers. It might be worth while for travellers to observe more minutely the manner of life, customs and industry of these peasants. The state of society, which would be thus exhibited, might be found to be similar in some respects to that of the wandering tribes that are mentioned in the Bible. The sea and river fishings in the country of Oldenburg are very productive; they furnish the means of employment and subsistence to a great many individuals.

The most northern part of the dutchy is exposed to a cold and humid atmosphere, which may be accounted for from its proximity to the sea, and also from the form of the bay of Jahde, a gulf that penetrates into the land to the distance of sixteen miles,^b and is so called from the little river that falls into it. The district that borders on the bay, is subject to violent north winds, and the cold season lasts longer than in the rest of the country, although the spring and the summers throughout Oldenburg are later than in other parts of Germany, situated under the same parallel. The evenings and nights are often very cold in the midst of summer, and the sudden change of temperature has been considered the cause of dangerous and frequent diseases.

The German is spoken by the Oldenburghers, but it is not supposed that they speak it well; at all events their pronunciation has been condemned by German purists.^c

The greater portion of the inhabitants are Lutherans; there are however a considerable number of Catholics, many Calvinists and several Jews; all of them have entire liberty of worship. The Lutherans are in possession of a hundred and one churches, of which the government is committed to three superintendants, and an intendand ge-

neral. A moderator presides in the assemblies of the Calvinists.^d The Catholics have not fewer than thirty-seven parishes, and all of them are subject to the inspection of a dean. A consistory is the highest ecclesiastical court that the Lutherans acknowledge, and its jurisdiction extends not only over their different churches, but also over their different seminaries and places of education.

The grand duke of Oldenburg, as the sovereign of the country, is at the head of a supreme council, to whose deliberation every matter of importance is entrusted. The different members of the administration are responsible to another council, over which the minister of the duke presides. A third council regulates the revenue and expenditure.

A court of chancery, and a court of appeals, are the highest tribunals, and the subordinate officers are magistrates and bailiffs. The country is divided into districts, bailiwicks and parishes. The magistrate of each district judges in the first instance, but his decision may be revoked by the court of chancery, from which the parties are at liberty to appeal to the supreme court of justice.

Oldenburg, the capital of the dutchy, and the most important town from its population, which amounts to five thousand five hundred inhabitants, is situated at the confluence of the Hase and the Hunte. The town is well built, the houses are large, the streets are broad and straight. It is surrounded by two suburbs, and it appears from the census of 1823, that the number of houses was at that time more than six hundred and fifty. Three churches, as many hospitals, an observatory, a gymnasium that possesses no mean reputation, and a seminary that is set apart for the instruction of schoolmasters, are the most useful institutions. The small harbour of Oldenburg communicates with the North Sea by means of the Hunte and the Weser. The inhabitants carry on a trade in sugar, tobacco, soap and leather. Oldenburg is the birthplace of Lubin, a writer of great learning, who died in 1621; he was the author of a Latin treatise on the nature and origin of evil, and also of very curious and erudite commentaries on Anacreon, Persius and Juvenal; these works were at one time much celebrated, but they are now only consulted by a few scholars. The grand duke has a castle at Oldenburg, but he resides generally at Rastede, a place at no great distance from the town.

Delmenhorst on the Delme, is peopled by two thousand inhabitants; a fair is held in it every year, during which a great many horses and oxen are sold. *Wildeshausen*, a town that contains two thousand five hundred inhabitants, is chiefly remarkable on account of its leather works and cloth manufactories. The district of *Saterland* ought not to be passed over in silence; it is situated in the middle of a marshy country, and its inhabitants, who are of Frisian origin, have retained the language and customs of their ancestors. The people of both sexes, from the age of five to the most advanced period of life, employ their leisure hours in knitting stockings. Varel, which is situated at the mouth of the Jahde, contains a population of two thousand six hundred individuals; it is a place of considerable trade, and the entrance of vessels into its harbour is rendered easy by the tides.

We have thus briefly enumerated the most important towns in the grand dutchy of Oldenburg. It ought to be

^a "If it were not for abundant supplies of peats, the poorer classes would often be destitute of fuel."

^b "5 leagues."

^c "The German is spoken by the Oldenburghers, but not with elegance, and their pronunciation is considered too flat, by the German purists."—

The vernacular dialect of Lower Germany is called *Platt Deutsch* (Flat Dutch,) and the English pronunciation is condemned by Adelung, for its closeness and flatness.—P.

^d "The Calvinists have 4 churches, and a superintendent."

remarked, that many of the marshes have of late years been drained by government; sluices and canals have been constructed to serve as outlets for the waters. These operations, undertaken and continued at a great expense, must be one day attended with beneficial results.

It has been already stated that the Duke of Oldenburg possesses two small principalities, those of Lubeck and Birkenfeld. The town of Lubeck, and the territory attached to it, shall be afterwards more fully mentioned; they form no part of the first principality, which ought perhaps to be called Eutin or Utina, from its capital, which is situated on a lake of the same name. Eutin is a small but well built town, with a population of two thousand five hundred souls. It possesses a gymnasium and a large castle. The principality of Lubeck is peopled by twenty thousand inhabitants, who are almost all Lutherans; its surface is not less than twenty-six square leagues^a or a hundred and fifty-six English square miles.

The small territory of Birkenfeld, which formed at one time a part of the French department of the Sarre, and which has been since raised into a principality, contains 20,000 inhabitants, scattered over a surface of a hundred and fifty English square miles.^b Birkenfeld, which is situated on the Nahe, is rather a burgh than a town; its population does not amount to fourteen hundred individuals, and its trade consists chiefly in iron. Oberstein, another burgh of the same sort, but more interesting from the industry of its inhabitants, is situated in a small valley on the Nahe. There are not fewer than twenty mills in which different articles of furniture and jewellery, made of agates, chalcedonies, carnelians, jaspers, lapis lazuli and other hard stones, are cut and polished. Men, women and children are constantly employed in preparing and finishing the different articles, which are exported to most countries in Europe, for in no other place is that sort of work so well executed, or at so little expense. The annual exports, it is supposed, are sold for £12,500, and they consist mostly of ear-rings, snuff-boxes, seals, bracelets and necklaces.^c

The naturalist Faujas has given an account of the manner in which hard stones are worked at Oberstein.^d The greater part of the population are employed in collecting, cutting, hollowing and polishing agates. A cutting mill consists of a shaft which serves as an axle for several grindstones, and is moved by a current of water by means of a large wheel and several cogwheels. A workman, lying prone on a horizontal plank, holds in his hand a piece of wood, to which an agate is attached, and presses it against a grindstone that revolves rapidly, and is constantly moistened by a small stream of water. The grindstones are made of very hard sandstone of a reddish colour; in some of them channels or furrows and different angles are cut, and the men use them with much skill in executing any delicate or complicated piece of work. Wheels and cylinders of soft wood are made to move by strong straps of leather, that are attached to the two extremities of the shaft on which the grindstones revolve. These wheels and cylinders are used in giving the last polish to the different works, and that part of the labour is generally committed to women. It is obvious, however, that any machinery made

of soft wood must be wholly useless in polishing the hard agates that are fashioned by the grindstones; it ought to be mentioned, therefore, that the wheels and cylinders are covered with a fine paste made of some hard substance reduced to powder. The workmen at Oberstein refuse to give strangers any information concerning the nature of this substance, or the place from which they obtain it. If an opinion may be formed from its colour,^e it is probably a composition or amalgam. It is by means of it that they are enabled, with great facility, to give a fine lustre to their works, and thus to sell them at a moderate price. M. Faujas after much trouble and research at last discovered the place in which the substance was obtained. It is found, says that writer, on the mountains in the neighbourhood, and is nothing more than a sort of clay formed by the decomposition of porphyry. It consists principally of felspar that has undergone by the action of water and the atmosphere alterations analogous to those by which the same substance is changed into the white clay that is called kaolin, and used in the manufacture of porcelain. It may be difficult to conceive how the vases and snuff-boxes made at Oberstein can be hollowed on large grindstones. But when these articles are made, cones of sandstone of different diameters are substituted for the small wooden wheels that have been already mentioned. On these cones, which turn with great rapidity, it is not difficult to hollow a large piece of agate.

The military establishment in the grand duchy of Holstein-Oldenburg amounts to two thousand men, its revenue is not less than 1,500,000 florins, and its finances are in a state of prosperity, that may excite the admiration of greater nations. The national debt, which was equal in 1817 to 485,744 dollars, or £85,005,^f has been since liquidated by means of judicious retrenchments, and advances made by the grand duke.^g

The kingdom of Hanover, formerly an electorate, is bounded on the north by the German Ocean, on the east by Holstein, Mecklenburg and the Prussian province of Saxony, on the south by the duchy of Brunswick and the grand duchy of the Rhine, and on the west by the Low Countries. Its surface is equal to 1,932 square leagues,^h or 11,592 English square miles. The number of inhabitants is not less than 1,463,700, so that the population for every square mile is nearly equal to one hundred and twenty-seven individuals.ⁱ

Hanover is one of the northern countries once inhabited by the Saxons, who invaded England. They were formerly a rude and warlike people, but they are now peaceably settled in the country, which their ancestors conquered; formerly devoted to rapine and plunder, and fond of a wandering life, they are now civilized, beneficent and attached to their country. They appear to have lost every trace of their ancient origin, except their bravery and love of liberty. Their ancestors worshipped sanguinary and revengeful gods; their descendants practise the virtues inculcated by a religion of mercy. They were part of the Cimbro-Saxon branch of the Germanic family, and were divided into several nations or tribes. The *Longobardi* or *Vinuli* inhabited both banks of the Elbe; the *Chemî*, as has been already

^a "9½ German sq. miles, or 26 Fr. sq. leagues."

^b "9 German sq. miles, or 25 Fr. sq. leagues."

^c "Buttons, rings, pendants, seals, crosses, necklaces, vases, snuff-boxes, candlesticks, and various other articles, are annually wrought at Oberstein, to the amount of more than 300,000 francs."

^d Voyage Géologique à Oberstein—Annales du Muséum, tom. vi. p. 53, &c.

^e "Violet-red colour."

^f Reckoning the rix-dollar at 3s. 6d. its value in Hanover.—P.

^g In the original it is stated that the national debt was liquidated in 1817

^h "695 Germ. miles or 1932 sq. leagues."

ⁱ "757 per sq. league."

remarked in the account of Oldenburg, possessed the lands at the mouth of the Weser; the *Fusi*^a occupied the country which now forms the territory of Hildesheim; and the *Cherusci*, who mixed at a later period with the Franks, were settled near the Hartz forests.

The names of some mountains, and of several places in the country, are connected with the different divinities that were adored by the early inhabitants. *Sonnenberg* signifies the mountain of the sun, and the termination *horn*, which occurs in several names, is probably connected with the worship of the moon, which was distinguished as a deity, by the horns of the crescent.^b *Biel*^c was the name which the northern nations gave to the god of vegetation, and to the special protector of the Hercynian forest. The same word also occurs in the names of different places in Germany. The word *ostern*, which signifies easter, a derivative from *ost*, east, is believed by many Germans of the present day to have been the name of a planetary festival, which was abolished after the introduction of Christianity. Antiquaries are too apt to draw incorrect inferences from a number of stones, fancifully arranged or grouped together on hills, plains and forests. If such a system were adopted, it might be easy to trace the druidical worship in almost every country on the earth; and without doubt similar monuments might be found on the top of Mount Brocken.^d

The electoral family of Hanover is sprung from the ancient house of Brunswick. Ernest Augustus, the youngest son of George, duke of Brunswick,^e was the founder of the family. That prince, who was made bishop of Osnabruck in 1662, succeeded to the dukedom of Hanover, in 1680, after the death of his brother,^f who was the titular duke of the principality. Ernest soon became a great general, and rendered so important services to the empire, that Leopold raised him to the rank of an elector, and made the dignity hereditary in his family.^g His son, George Lewis, was proclaimed King of England in 1714, after the death of Queen Anne, and that prince, whose father had been bishop of Osnabruck, became a firm supporter of protestantism. Great Britain thus obtained possession of Hanover, to which it continued to add new states until the year 1802; by this means it got a footing on the continent, and was enabled to take more or less interest in continental affairs, according to circumstances. The league that it formed against France, gave the last power a pretext for conquering Hanover, which, in conformity to a treaty concluded in 1806, belonged for some months to Prussia, and was afterwards divided by Napoleon between France and the kingdom of Westphalia, which he had lately founded. It was not until 1813 that Hanover was restored to England; the following year it was erected into a kingdom, and was afterwards enlarged by the addition of East-Friesland and other territories.^h

From the shores of the sea, to the southern extremity of

^a *Fosi*, Tac. D'Anv.

^b Mangourit, Voyage en Hanovre, 8vo. 1805.

^c See Hennius.

^d "Few Germans suspect the origin of the word *ostern*, a term in their language which signifies easter. Does not its root, *ost*, east, refer to a planetary festival, for which the present Christian festival has been substituted? Traces of the Druidical worship may be found on almost every part of the globe, if we may believe certain antiquaries, who attribute to it all those singular groups of stones which are so often observed in plains and forests, and even on the tops of mountains. We shall not therefore be surprised, if it has left similar monuments on the summit of the Brocken" — the altar and the sorcerer's chair. See pp. 617, 618.—P.

^e Duke of Brunswick-Zell. *Moreri*.

^f John Frederick, third son of the Duke of Brunswick-Zell.

^g "In the male line."

^h The French were driven from Hanover, and the country restored to its ancient rights, by the Crown Prince of Sweden, in 1813. It reverted

Hanover, the land rises gradually in the direction of the Hartz mountains; most of the ramifications that extend from them, are situated in the kingdom. The land, near the sea, and particularly in the eastern districts, which are watered by the Lower Elbe and the Lower Weser, is chiefly formed by alluvial deposits, brought down by these two rivers. It is often exposed to inundations, the destructive effects of which can only be prevented by dikes and embankments. The great number of marshes in the same part of the country, proves sufficiently the recent formation of the land, or the comparatively short period since it emerged from the water. The same remark is applicable to the western districts that are watered by the Ems. These districts are not productive, but the most sterile lands are the heaths of Luneburg and Verden, situated between the Elbe and the Weser, and those of Meppen on the right bank of the Ems. In these poor districts, so ill adapted for agriculture, the traveller passes through sandy countries covered with forests of fir trees, and through heaths and marshes. A portion of the marshy districts near the territory of Bremen has been cultivated, but much time and labour must be spent before any improvement can be discernible in the vast heaths of Luneburg, which occupy from east to west an extent of sixty miles,ⁱ and not much less than the same distance from south to north, or from Celle to Harburg. The land in the neighbourhood of Bentheim, on the left bank of the Vechte, consists mostly of immense heaths, covered in different places with marshes and stagnant water. Considered in a geological point of view, the countries that have been mentioned, belong to the most recent formation, or that which has been called *tertiary*. This serves to explain why the sea near the town of Stade, not far from the mouth of the Elbe, brings with it at every tide, the remains of trees different from those which now grow in the country. Blumenbach justly considers them as fossil; they are brown, sometimes black, and almost always bituminous. They are real lignites, and their presence proves that the sea covers there a more recent formation than the chalk, of which the traces have been seen on the shores of the Baltic.

The secondary calcareous formation extends towards the Hartz, commencing at a line drawn from west to east, from Osnabruck to Hanover. It rests on the chain of the Hartz, which rises like an island in the midst of this formation. The mountains that form the chain are mostly composed of granitic rocks,^k and they are more precipitous on the south than on the north. All of them are not situated in Hanover, it has been already seen that part of them belong to Prussia, but as we have only described Mount Brocken in our account of the Prussian provinces, it is necessary to enter into some details concerning that mountainous and metalliferous region.

The Hartz forms part of the country, which the ancients

to its legitimate sovereign, at the treaty of Paris, in 1814, and it was erected into a kingdom, at the second treaty of Paris, in 1815. East-Friesland and several other territories were ceded to it in 1815.—P.

ⁱ "25 leagues."

^k According to Prof. Jameson, the Hartz mountains are composed of primitive, transition, secondary (floetz) and alluvial rocks. The primitive rocks are granite, greenstone, horn-rock, quartz-rock, clay-slate (metalliferous) and limestone. The granite is supposed to form the central part or nucleus.—The transition rocks are limestone, graywacke and clay-slate, (both metalliferous,) whet-slate, alum-slate, flinty slate, trapp and porphyry.—The floetz rocks surround the Hartz on every side, and spread from thence over the hills of Lower Saxony. They consist of old red sandstone, clay-stone porphyry, Alpine limestone, gypsum, variegated sandstone and quader sandstone. The alluvial substances are calc-tuff, loam and clay, lignite or brown coal, bog-iron, peat, and rolled masses or bowlders.—P.

denominated the Hercynian forest (*Sylva Hercynia*.) It has been observed by different writers that the analogy between the Latin and German names proves that the former was derived from the German word *Hartzwald*.^a The country, it cannot be denied, was in ancient times covered with immense forests of fir trees. But the German writers have proceeded a step further; they have endeavoured to discover the etymology of the word *hartz*. Some affirm that it comes from *hart*, the origin of which is unquestionably Germanic, and the signification accords sufficiently with the rugged appearance^b of these mountains, and perhaps with the harsh physiognomy^b of their inhabitants. Other writers have derived the word from *Hertha*, the name of an ancient divinity that was supposed to inhabit the woods and mountains.^c The last derivation renders it probable that a word analogous to *hartz* was applied by the Germans to denominate all the mountainous chains in their country, and it is thus easy to account for the immense extent, which the Romans assigned to the Hercynian forest. Led into error by a generic term applicable to many places, they believed in the existence of a country, covered with mountains and forests, that occupied the greater part of Germany. Julius Cæsar affirms that the Hercynian forest was so broad that it required nine days' march to cross it, and so long that no German could travel from one extremity to the other in sixty days.^{d e} It has also been supposed that the name of the Hartz was derived from the fir trees, which in ancient times overspread the peaked summits of these mountains,^f and this we consider the most probable etymology. *Hartz* is at present the German word for resin, and it is natural to suppose that the use which they made of that vegetable substance, and its value in exchange for other commodities, induced the Germans to give its name to the mountains from which it was obtained in the greatest abundance.

The chain of the Hartz is about seventy-five miles in length and twenty in breadth.^g Steep summits, vallies, woods and marshes form a natural labyrinth, from which it is almost impossible for a stranger to extricate himself without a guide. In the limestone which rests on the granite rocks of this chain, are observed several caverns, less remarkable for their numerous and intricate windings than for the enormous quantity of fossil bones which are contained in them, so much so, that they may be considered immense natural charnel-houses, in which are deposited the remains of a race of animals different from any at present existing on the surface of the earth. Such phenomena attest the important changes that have happened in our planet. The most remarkable of these caverns are those of the Unicorn and of Baumann. The first is situated at the base of the castle of Scharzfels, and consists of five grottos that communicate with each other by numerous sinuosities, both ascending and descending. The second, which is much larger, consists likewise of the same number of cavities placed on different levels. The height of the first above

the second grotto is equal to thirty feet. It is necessary to climb a difficult ascent from the second to the third, and finally, after having mounted and descended, to pass a rapid declivity that leads to a subterranean gallery partly filled with water, and situated below the other grottos. In that gallery, which is seldom visited, are contained many bones, belonging for the most part to tygers, hyenas, and bears of much larger dimensions than any that can be seen at present.^h

Several streams which enlarge the Elbe and the Weser, take their rise from the Hartz mountains. The *Witches' Fountain* (*Hexen Brunnen*) is among the number of these springs; its name, as a traveller observes,ⁱ indicates certain superstitious practices of the ancient inhabitants of that country. After Christianity was established by the sword of Charlemagne, some of their priestesses may have visited that fountain, and performed their rites at it, and the Christian priests, confounding their ceremonies with the worship of demons, may have called the spring by the name which it still retains. It is situated at the distance of about twenty feet below the summit of Mount Brocken, and emits an abundant supply of fresh and limpid water.^k

The Hartz mountains have been long known on account of their mines; the silver veins are for the most part situated in the territory of Hanover; they occur in the fissures of a sandy rock, which is now generally known by the German name of *Gräuacke*.^l The remains of vegetables and marine animals are contained in the same rock. The other metals which are worked, are lead, iron, copper, zinc and even gold; sulphur and arsenic are also obtained. Marble, slate, free-stone and several kinds of clay are observed in different parts of the range. There are, besides, many mineral springs, but those at Limmer and Pymont are the most frequented.

It has been remarked that there are few places in Europe, where the art of the miner is so well understood as in the Hartz mountains. The workmen employed in the mines, form a distinct population of more than 56,000 individuals, whose ancestors migrated from Franconia. The first strangers that settled in these mountains, were sent by Charlemagne; but during the eleventh century, a new colony was invited to work the mines at Rammelsberg, which were at that time discovered. Their descendants are easily recognised by their black uniforms and red facings. They are arranged like soldiers into companies, and their commanders are engineers, whose rank corresponds with that of generals, colonels, and other inferior officers. The men are attached to the service, and the utmost harmony reigns amongst them. They are fond of the chase, a favourite amusement of their ancestors, and are distinguished too by their love of music, and their partiality for the songs of their country. Their frank and rustic hospitality may be considered another quality common to them with their forefathers. Strangers seldom visit them, but those who do so are always made welcome.

^a Hartz Forest.

^b "Aspect sombre," gloomy appearance—"figure noirâtre," dark complexion. The original and translation here differ entirely. The modern German word *hart*, is the same as the English *hard*; but the original has undoubtedly reference to an ancient Germanic word of an entirely different signification, probably an ancient form of *swart*, Germ. *schwarz*, black—a change not unusual in the Teutonic languages, as in *melt*, *smelt*, Germ. *schmelzen*. The name *Hartz*, has been also derived from the ancient word *hart*, high, the Celtic *ard*, Latin *arduus*.—P.

^c "Lieux élevés," high places.

^d "Neque quisquam est hujus Germaniæ, qui se adisse ad initium ejus

sylvæ dicat, quum dierum iter LX processerit, aut, quo ex loco oriatur, acceperit." No one in this part of Germany, professes to have reached the extremity of it in 60 days' journey, or has ever ascertained where it terminates.—P.

^e Cæsar's Commentaries, Book VI.

^f Strabo, Book VII.

^g "30 leagues by 12"—70 miles long, 20 broad. Ed. Encyc.

^h "Bears as large as a horse."

ⁱ M. A. B. Mangourit, Voyage en Hanovre.

^k Lazius, Description of the Hartz. (Germ.)

^l Red silver ore occurs in veins in the primitive clay-slate; the graywacke contains galena, and also copper, iron and manganese ores. *Jameson*—P.

Few lakes are situated in the kingdom of Hanover; indeed there are only three that are worthy of notice. The first is the *Steinhudermeer*, and the second, the *Dummersee*; the latter abounds in fish, and its surface is about three miles in breadth, and six in length. But the most remarkable of them all, is the lake of *Jordan* in East Friesland; it extends a considerable distance under ground, and the land above it, says Stein, is sufficiently solid to support the weight of carriages.

The climate of Hanover is in most places mild; the natives boast of its salubrity, but it must be confessed that the humidity of the low and marshy grounds is unwholesome, and the temperature in a great part of the country extremely variable. The winters are severe, and the weather is often cold in summer. The dews and vapours which rise from the ground in the same season, about sunrise and sunset, are often fatal to invalids. The north-west wind blows frequently during winter, and the east wind in spring, but the south-west wind prevails in summer and a part of autumn. The influence of these winds, and the sudden changes of temperature, are very unwholesome.

It need not excite surprise after this account of the climate, that different maladies are not uncommon in Hanover. If the month of July be very warm, the inhabitants are exposed to epidemical diseases. But the most common diseases are nervous and intermittent fevers, phthisis, paralysis and apoplexy.

The natural wealth of Hanover consists in its sea and river fishings, in the game that abounds in its forests, fields and marshes, in the cattle that are fed on its pastures, in its vegetable productions, and lastly, in the mines that are contained in its mountains. Adhering to these divisions, according to which few countries can be compared with Hanover, we shall endeavour to give an account of each of them.

Since the encouragement granted by George the Third in 1792, to the whale fisheries, many Hanoverians have sailed every season to the shores of Greenland. The fisheries on the coasts of Hanover, are also very productive. The rivers and lakes are abundantly stocked with different kinds of fish, such as perch, barbel, carp, pike, trouts and eels of a very large size.

Planks, and timber well adapted for the construction of small vessels, are obtained from the forests. Firewood, it is true, is very dear, but as several coal mines are worked, that inconvenience is in a great measure obviated. Many decayed fir trees are observed in the woods; the cause of their decay has been attributed^a to the ravages of an insect, which appears to be the *Bostrichus typographus* of the entomologist Fabricius. The fact however may be considered doubtful, for that insect has been seldom known to attack living trees. There are many very large oaks in the neighbourhood of Celle. Stein assures us that some have been measured, which were near the ground more than forty feet in circumference, and near the branches about twenty-five.

The forests afford shelter for stags, roe-deer, wild boars, hares and rabbits, but fortunately for the farmer, their number has much decreased within the last twenty years. The marshes abound with different water fowl, and many ortolans are killed in the neighbourhood of Osnabruck. It is principally in the Hartz mountains that the wolves are formidable from their number and size. The horned cattle

are not large, but the oxen and sheep on the mountains are said to be of an excellent kind.^b The Hanoverian horse is considered very valuable; whether it be owing to the abundant pastures and the great quantity of oats that are cultivated, that foreign breeds have not degenerated, or whether the race be indigenious to the country, it is certain that strangers are often astonished at the strength and symmetry of the horses that are seen in the wagons of the peasantry. It is remarkable, however, that the Arab and southern breeds have been crossed with those of the north, and have never succeeded in Hanover.

The wool in the country is in general coarse and of a bad quality, but it has been improved since the time that government encouraged the introduction of Spanish sheep. The inhabitants in some of the districts gain a considerable profit by the sale of their poultry;^c and the rearing of bees is found to be a lucrative employment. In spring, when the meadows are enamelled with flowers, many of the peasants, who in that season have no other occupation, leave their villages to collect these valuable insects, and fill perhaps 60,000 hives.

The principal wealth of Hanover consists in the produce of the mines; not less than 75,000 quintals of iron, 5000 of lead, 7000 of copper, and 40,000 marks of silver, are obtained every year. The working of the copper mines furnishes besides 2000 quintals of sulphate of copper, or blue vitriol.

Agriculture is not in an advanced state in the kingdom. The waste lands are very extensive, and no attempts to drain any part of the marshes have originated from government. It is admitted that the agricultural societies, which are established in some of the large towns, have proposed some improvements; but it is difficult to determine how much time may be consumed before such societies can enlighten the mass of proprietors and peasants, guided by routine, and adverse to innovation. The agricultural products are oats and other kinds of grain, maize, beans, potatoes, hay, and lastly hemp and flax.

The fruits in Hanover, with the exception of the apple, are neither so large, so good, nor so abundant as those in France. The vine is only cultivated in the gardens; the grapes are principally consumed by the wealthy; little or no wine is made from them, and they do not often arrive at perfect maturity.

The manufactures of the kingdom are not of the best quality. The natives are more disposed to seek employment in a foreign country than to cultivate the land, or gain a livelihood in their own. Stein supposes that the number of individuals, who migrate every year to Holland, cannot be less than 16,000. The Hanoverians have succeeded, however, in the manufacture of tobacco, soap, different woollen stuffs, and particularly in the art of working iron and copper. A great many hands are occupied in spinning flax, and weaving linen. The annual produce of the linen manufactures in the territories of the Luneburg, Bremen, Osnabruck, Hoya and Diepholtz has been estimated at 5,500,000 florins. People of both sexes are employed in these manufactures, and there are village girls in the district of Celle, who can spin in the space of nineteen hours more than seventy-eight skeins of thread. But the linen manufactured in Hanover, is much inferior to that of Prussia and Friesland. There are many tan works in the country, but the leather is not considered good. Jewels, lace and dif-

^a Mangourit, Voyage en Hanovre.

^b "Fer the delicacy f their flesh."

^c "Geese."

ferent articles of luxury are better made in Hanover than in many European countries.

The carriage of exports and imports has been facilitated by excellent roads and by steam-boats that are every day ascending or descending the Elbe, the Weser, the Ems and the Aller. The transit trade with Germany and the North of Europe, has risen into considerable importance. Among the large commercial towns, ought to be mentioned Münden, where three hundred and seventy vessels arrive annually by the Weser, a hundred and ten by the Werra, and a hundred and thirty by the Fulda. Seven hundred and fifty wagons pass every year along the roads that lead to the south-east of Germany, and a hundred and thirty-five along the roads that communicate with the south-west of the same country. The different exports have been estimated to amount annually to more than 450,000 dollars, or nearly £67,000.^a

According to Hassel, the population was equal in 1822, to 1,463,700 individuals; it was distributed in seventy towns, a hundred and seventeen burghs, eleven hundred and five parishes or villages, four thousand and twenty-four hamlets, and twelve hundred and eighty manors and farms. The surface of the country is not less than 1946 French square leagues, or 11,676 English square miles. There were, therefore, more than one hundred and twenty-five inhabitants for every English square mile.^b

Previously to the year 1823, the kingdom was divided into eleven provinces, but as those provinces were very unequally circumscribed, the country was divided in the same year into seven governments, which may be briefly mentioned.^c

The government of Hanover is made up of the ancient principality of Kalenberg, and the counties of Hoya and Diepholtz. It contains thirty-two bailiwicks and nine independent tribunals.

The government of Hildesheim, formed by the principality of the same name, those of Göttingen and Grubenhagen, and the county of Hohenstein, contains thirty-seven bailiwicks and twenty-five tribunals.

The government of Luneburg comprehends the principality of the same name. There are thirty-seven bailiwicks and eight tribunals.

The government of Stade is composed of the dutchies of Bremen and Verden, and the country of Hadeln. It is divided into sixteen bailiwicks and twenty-eight tribunals.

The government of Osnabruck comprehends, in addition to the principality of the same name, the counties of Lingen and Bentheim, and the circles of Meppen and Emsbühren. The number of bailiwicks is not more than nine.

The government of Aurich is made up of the ancient province of East Friesland; it contains twelve bailiwicks, and five tribunals.

Lastly, the high council of the mines at Klausthal, holds the rank of a government, and extends its jurisdiction over the Upper Hartz (Oberhartz.) This concession was made to it on account of the privileges which the miners have enjoyed for ages. It comprehends only one bailiwick.

According to the calculations of Hassel, the number of Jews in Hanover amounts to six thousand seven hundred,

and, according to Stein, to fifteen thousand, but the last number seems to be too great. It appears from the most authentic sources of information, which we have examined, that the number of Lutherans, or of those who adhere to the Augsburg confession, may amount to eleven hundred thousand, that of reformed or Calvinists to a hundred and twenty thousand, that of Catholics to two hundred and thirty thousand, that of Jews to thirteen thousand, and that of Mennonites to five hundred.

The Lutherans have their pastors, superintendents and general superintendents, who are subject to the consistories of Hanover, Osnabruck, Aurich, Hildesheim, Stade and Otterndorf. The Calvinists have their ministers and consistories, and the Catholics their priests and bishops, under the direction of the archbishops of Osnabruck and Hildesheim. The ancient chapters have been restored in the government of Hanover; and all the monasteries and church lands, which were not sold during the foreign domination, are concentrated in the government of Hildesheim. A committee of the chapters has been instituted, whose office it is to collect the revenue of these lands, and to purchase such as were sold or alienated during the Westphalian government. The rental of these properties is added to a general fund, out of which certain pensions are paid, besides the expenses of the chapters, and whatever is connected with the catholic worship. The appointment of a committee to manage this fund was ratified by government in 1816, and since that period it has raised a loan on the security of the lands that are to be redeemed. But the proprietors, who are unwilling to part with their estates, may retain them by paying a sum that must be laid out in the endowment of universities, and other scientific institutions in the kingdom.

Hanover is an hereditary kingdom, dependent on the crown of England.^d It is ruled by a governor general, a prince of the blood, who on any important affair takes the advice of the king at London, where his majesty is assisted by a council of Hanoverians. But according to the constitution, if the crown of England passes to a female, that of Hanover belongs to the nearest male relative of the sovereign. The government of the kingdom is partly feudal and partly representative. The legislative department is committed to two chambers that assemble annually. But, according to a decree passed in 1814, several customs relative to feudal rights, which were abolished by the French government, have been renewed. The ancient laws and customs of the country are also put into force, until a new code, which is at present forming, has been arranged. Justice is administered in the bailiwicks, the different tribunals, the courts of chancery, and the supreme court at Celle.

The Hanoverian army consists in time of peace of twelve thousand men, and the *landwehr* or militia of eighteen thousand. It appears from a law passed in 1817, that every individual without distinction of rank must enter the militia at the age of nineteen. An exception has been made in favour of clergymen, professors, infirm persons, officers of government, military officers who have served during six years, and only sons who have lost a brother on the field of battle. The privilege of finding substitutes is only granted to students. The *landwehr* is reviewed every year, by

(Great Britain) and that of Hanover are vested in the same individual, as long as the sovereignty of the former is transmitted in the male line; but the two governments are independent of each other, and the king of Great Britain is politically a different person from the king of Hanover.—P.

^a "Nearly 1,800,000 francs."

^b "752 per sq. league."

^c Neue Allgem. Geog. und Statist. Ephemerid. vol. xiii. No. I. 1824.

^d This is the language of the original. The translator has given it, "independent of the crown of England." The sovereignty of England

companies and battalions, and detachments are exercised every Sunday, except in the time of harvest. The duties of a horse police^a are performed by the royal corps of provincial dragoons.

Having entered into some details concerning the productions, population, government and military establishment of Hanover, we shall endeavour to describe its principal towns. Hanover, the capital, is situated in a sandy plain at the confluence of two small rivers, the Leine and the Ihme; the first is navigable, and divides the city into two parts, called the Old and the New Town. The most of the houses are built of brick, but the new streets are spacious and regular. The Old Town was only a fortress in the year 1130, but in 1178 it obtained the rank and privileges of a city. The New Town contains about three hundred and fifty houses, and the suburbs four hundred and fifty. The population amounts to twenty-four thousand inhabitants. The elevation of the soil is not less than a hundred and twenty feet^b above the level of the sea. The neighbourhood of Hanover is adorned by fruitful meadows, picturesque scenery, and the Linden, a fine public walk. The town at a distance resembles a large garden, in which houses, and steeples covered with plates of copper, are interspersed. The illusion is increased by the course of the Leine, which winds round the town. On approaching the city, it may be seen that the streets and houses are agreeably shaded with rows of poplar and lime trees. A great degree of activity is observable in the streets, and some of the buildings are remarkable for the elegance of their architecture, which contrasts well with the German and Gothic style of several ancient habitations. The finest public buildings are the palaces of the king and the viceroy, the arsenal and the opera. The temple of honour, or the monument erected to Leibnitz, is no unworthy tribute to the memory of that great man. A Jewish synagogue, a French church, and four others, may be mentioned among the different places of worship.

Students, and all those who devote their time to literature or science, may find Hanover no disagreeable residence. The society of natural history is entitled to celebrity from its labours and researches. The school of artillery and fortification is conducted on an excellent plan. The institutions by which the different branches of knowledge are diffused, are creditable to the authorities. The Lutheran gymnasium, the Jewish seminary and many other schools are not the only proofs which government has given of its solicitude for the happiness of the people. A normal school, or a seminary for the instruction of schoolmasters, may be considered a model of its kind. Both sexes are taught the useful branches of education, as well as the more superficial accomplishments. Thus, the instruction of a girl is not confined to ethics, religion, music and drawing, but extends to whatever is likely to be of use to her as the mother of a family. Boys are taught arithmetic, book-keeping, to draw plans, and other branches of education, which on many occasions may be very useful. Their time is not wasted in learning what the world and its distractions are likely to make them soon forget; in France they are kept eight years at Greek and Latin; in Hanover, English and French, geometry and natural philosophy are essential parts of education;^c Hebrew and archæology are considered indispensable in the higher schools.^d The Georgian institution,^e in

which the sons of nobles are educated, is subjected to a military discipline, but is conducted on such a plan as to qualify the pupils for holding civil as well as military employments. It might take up too much time to give an account of the different scientific collections in the town, from the cabinet of natural history, and that of antiquities and medals in the palace of the king, to the public library, which consists of more than 200,000 volumes. The useful arts are not in a very advanced state, but the commerce and industry of the town have rapidly increased since the peace, and it carries on at present a considerable trade with Bremen and Hamburg. We might mention its sugar works, distilleries, tobacco mills, porcelain and linen manufactories, and particularly its embroidery, which is sold for a high price in Germany.

The Germans speak with admiration of the royal palaces of Herrnhäusen and Montbrillant, the gardens of Walmöden, and other country seats belonging to different individuals, in the neighbourhood of Hanover. But these places, at which a stranger may look for a few minutes, hardly merit any description. Besides, caprice or bad taste seems to have prevailed so much in the different arrangements and ornaments, that few strangers admire them. One may wonder at the great size of the fountain at Herrnhäusen, which rises nearly to the same height as that at St. Cloud, but emits a much greater body of water. In majesty and grandeur the building is infinitely surpassed by Versailles.^f Little can be said of the regular and gloomy hedge rows in the different gardens, if it be not that they serve to remind us how much the uniformity of art is inferior to the variety of nature. It ought to be mentioned that the town of Hanover claims the honour of having given birth to Herschel.

Göttingen, one of the most celebrated university towns in Germany, is situated on the banks of the Leine, at some distance above Hanover. Its population amounts to 11,000 souls, and its trade is chiefly confined to leather and woollen stuffs. But its fame depends wholly on its university, which was founded in 1734 by George the Second. Public instruction is carried to a great degree of perfection; the professors, of whom the number is not less than forty-two, are distinguished by their zeal and diligence; they are selected from the most eminent men throughout Germany. Lectures are delivered on all the sciences and varied departments of literature; nearly sixteen hundred students are matriculated in the university, and in order to form good teachers, the *senatus academicus* has under its direction a normal school, which is called the *Philological Seminary*. It need not, therefore, excite surprise if many distinguished men have been educated at this university. Much has been done to facilitate the means of acquiring knowledge. A library consisting of nearly 300,000 volumes, formed from the collection of Leibnitz, who left to it his numerous manuscripts, and which has been every year enriched by the best works on the sciences and arts, a fine collection of paintings, a museum of natural history, a botanical garden, an anatomical theatre, a cabinet of medals, an observatory rich in valuable astronomical instruments, and, lastly, a royal academy of sciences, of which the corresponding members are among the most celebrated men in Europe, are so many incentives and encouragements to the stu-

^a "Gendarmierie."

^b "180 feet."

^c "In schools of the second order."

^d "Schools of the third order."

^e The *Georgianum*.

^f In the original there is no comparison between the building and Versailles. The remark applies to the gardens and hedges. It is simply stated, that they have only the tiresome uniformity of Versailles without its majesty and grandeur.—P.

dents. There is also an excellent mercantile school at Göttingen.

The town of Münden is situated in a pleasant valley at the confluence of the Werra and Fulda, which by their junction form the Weser. It is peopled by 5000 inhabitants, who derive considerable wealth from the produce of their breweries, tan works, cloth and tobacco manufactories, and potteries. Its trade is rendered very active by the navigation of the river.

Klausthal in the Upper Hartz, may be said to be the most important town in that mountainous district. It possesses a mint, its population amounts to 8000 inhabitants, and it is 1950 feet above the level of the sea. The burgh of Hertzberg is the only place in the kingdom where arms are manufactured.

Goslar, which is situated in the same country, and to the north of Hertzberg, was formerly a free and imperial town. It is built on the banks of the Gose, whence the origin of its name, and the same river at no great distance from its walls, throws itself into the Ocker. According to Dresser,^a it was founded by Henry the Fowler, and fortified, for the first time, in the year 1201. It is generally believed, that gun-powder was invented in the town by the monk Berthold Schwartz. Peopled at present by 5700 inhabitants, it possesses large breweries, vitriol works and founderies. Part of the population are employed at these works, and at the slate quarries in the neighbourhood.

The ancient town of Hildesheim is situated on the northern declivities of the Hartz, and in a sloping plain on the banks of the Innerste. It was an important town when Charlemagne introduced Christianity into these countries, and stained the gospel with the blood of the Saxons, whom he massacred for the glory of a religion that inculcates charity and brotherly love. It contains at present 12,000 inhabitants, many of whom are engaged in trade and in manufacturing cloth. It possesses twenty churches, twelve of which belong to the Catholics, and eight to the Lutherans of the Augsburg Confession. The cathedral is the most remarkable of these buildings; it is decorated with fine pictures, and a monument is observed in it, not unworthy the attention of antiquaries; we mean the pillar on which was placed the figure of *Irmensul* or *Hermensul*, a Saxon divinity, that is by some confounded with Hermes, and by others supposed to be the same as Mars. It was held in great veneration by the people, but when Charlemagne made himself master of Heresburg in 772, he put the inhabitants to death, sacrificed the priests on the fragments of the broken statue, and buried the pillar near the banks of the Weser. It was removed by Lewis the Debonnaire to the church of Hildesheim, and a chandelier of several branches was placed on its summit; at present, however, as if to recal its first destination, it serves as a pedestal for a statue of the virgin.

Celle or Zelle stands in a sandy plain at the confluence of the Fuse and the Aller; it is a town of 8400 souls, and the supreme-court of appeal for the kingdom of Hanover is held there. It is adorned by several fine streets and squares, a large hospital and a castle surrounded with walls and ditches. But not the least ornament of the town is the monument erected to the memory of Caroline Matilda, Queen of Denmark, and sister of George the Third. There are several manufactories in Celle; the carrying trade of the

town has been improved, and a great many boats ply on the Aller.

Luneburg, or Lunenburg, an important town from its population, which amounts to 10,500 inhabitants, and from its being the capital of a government, is situated on the Ilmenau, a feeder of the Elbe. The monastery of St. Michael, the townhouse and the castle are nowise remarkable on account of their architecture. A Latin seminary, and an academy for the education of nobles, are the only schools founded by government. Extensive quarries of limestone, and salt pits are worked in the vicinity, and an immense number of bees are reared in the district. The town is a place of trade, but the principal exports are honey, wax, lime and salt.

Stade, the metropolis of a government, is situated on the Schwinge, and is peopled by 6000 inhabitants; it has its gymnasium, orphan hospital, merchant's hall, and several stocking and lace manufactories.

Embsen, the most commercial town in the kingdom, is situated on the right bank of the Ems, near its mouth. The bay of Dollart renders its port of great consequence; many vessels are built every year in its dock yards, and most of them are sent to the whale and herring fisheries. The town carries on besides a trade in manufactured goods, such as tobacco, stockings and thread; its population amounts to about twelve thousand souls.

Our description of Hanover would be imperfect, were we not to give some account of the islands on the coast, between the mouths of the Elbe and the Ems. Their names are *Wanger-Oog*, *Spieker-Oog*, *Langer-Oog*, *Baltrum*, *Norderney*, *Juist* and *Borkum*. Other islands are situated on the west of the mouth of the Ems, but they belong to the kingdom of the Netherlands. Encroachments have been made by the sea during six hundred years on the coast of Hanover, as well as on those of Holland; traces of these encroachments are in some respects marked by the gradual enlargement of certain gulfs, particularly by that of Dollart, which was formed by different invasions of the sea, from the year 1277 to 1539, when they were finally checked by dykes and embankments. Such a phenomena appear to prove that these islands formed at one time a part of the continent. Besides, that supposition is corroborated by a tradition common in the country, for it is generally believed that several villages built on coasts, which are at present destroyed, were buried under the waters. The same changes may probably happen in the course of time in the islands that have been mentioned; at all events it is thought that the water has been gaining on them. Thus the opinion entertained by geologists, that the ocean has at several times abandoned and invaded the ancient continents, of which the tertiary mountains exhibit the remains, is confirmed in this small portion of Europe. It cannot be doubted that these sandy islands, threatened with future destruction, must have been formed in the depths of the ocean, and although, since they have been covered with vegetation, and rendered habitable, the remains of terrestrial or fresh water mollusca have been there deposited, yet the sea which is destined to cover them, will hereafter deposit the remains of salt water or marine mollusca. If they should again emerge from the ocean, future observers will thus be enabled to trace the successions of marine and fresh water deposites, which are so often seen in lands that formed part of a former world. The islands consist of different chains of downs^b that rise to twenty, and in some places to fifty feet. To give more consistency to the sandy

^a *Isagoge historica per millenarios distributa, et ad annum usque nonagesimum primum, supra mille quingenta deducta.*

^b "Dunes," sand hills.

soil, by which they are formed, it has been thought proper to naturalize different plants that grow easily in sand, such as the *Elymus arenarius* and the *Ariundo arenaria* (Linn.) The care of putting this wise plan into execution, for its efficiency has been acknowledged in similar situations, is committed to the magistrates, clergymen and schoolmasters. Borkum differs, however, from the other islands, inasmuch as in several parts of it, the land is rich and well adapted for agriculture. The spaces between the islands and the continent are so shallow, that they are almost dry at low tide. They are all inhabited, and those who live on them, rear cattle, and subsist principally by fishing and hunting.

German antiquaries entertain different opinions both concerning the origin of Osnabruck,^a and the etymology of its name. It is certain that it was a place of some consequence in the time of Charlemagne. As to its etymology, some maintain that it is derived from Osenbrück (bridge on the Osen,) and others from Ochsenbrück (bridge for oxen.) The Hase, however, not the Osen, as might be naturally inferred from the first derivation, is a small river, which traverses the town. Osnabruck, now peopled by 10,000 inhabitants, was made the see of a bishop by Charlemagne. It was in the same town that the celebrated treaty of Westphalia was signed in 1648 by the Swedish plenipotentiaries and those of the emperor. The portraits of the ambassadors are preserved in the town house. Not-

withstanding the preponderance of the bishop, who was sovereign of the town, Osnabruck was one of the first places that embraced the reformation of Luther. There are at present two bishops of Osnabruck, a Catholic and an Anglican, the latter chosen from among the princes of the reigning family in England. The town was formerly fortified, as the remains of some ramparts indicate. It is, however, with the exception of a few streets, ill built; perhaps the finest street of any is the one that leads to the castle, a large edifice which is surrounded by a garden, adorned with fountains. It is unnecessary to mention the silver coffins in which are deposited the remains of Saint Crispin and Saint Crispinian, and which may be seen in the cathedral; but it may be remarked that there are several hospitals and a college, and that the inhabitants carry on an extensive trade in linen.

We shall conclude our account of Hanover by giving a short notice concerning the state of its finances. Hassel informs us that the revenue in 1821 amounted to the sum of 11,700,000 florins, and the expenditure to 4,665,000. But the public debt is not less than 30,000,000 of florins, the interest of which at four per cent. is equal to 1,200,000. It may therefore be easily admitted that if government is desirous of paying off the debt, or improving the country, the sum in the treasury cannot be very considerable. It has been affirmed that the excess above the expenditure is sent to England, but it is more probable that all the revenue is expended in the country.

^a Osnaburg, Osnabrug, Osenbruck, (Germ. Osnabrück.)

BOOK CXX.

EUROPE.

Europe Continued—Germany—Fourth Section—Prussian Provinces of the Lower Rhine—Principality of Neuchatel—Reflections on the State of Prussia.

COUNTRIES, which at no former period belonged to Prussia, were added to that kingdom by the last treaties; and whilst it was the professed object of those treaties to restore the ancient balance of Europe, a prince restored to the throne of his fathers in the name of legitimacy, most inconsistently with that great and salutary principle, was curtailed of a part of his territories, and a town founded by Louis the Fourteenth, was added to the dominions of Prussia. Thus the kingdom of Prussia, now more flourishing than ever, became on a sudden contiguous to humbled and degraded France. It seemed as if the high contracting powers were not so eager to bring back Europe to its ancient state, as to punish France for having ventured under a conquering chief to raise empires, found kingdoms, and dictate laws to sovereigns. We refrain from indulging in the political reflections which the present state of European geography is too apt to excite. But it is necessary to examine the new possessions of Prussia, and to calculate the advantages and disadvantages that are likely to result from them.

The provinces we are about to describe, consist of a country which the Rhine traverses from south-east to north-west; its extent from north to south is about two hundred miles, and the mean breadth from east to west nearly eighty;^a its total superficies is not less than 13,566 English square miles,^b and its population is equal to 3,095,000 individuals; now that number, if the inhabitants be supposed to be equally distributed in the country, gives upwards of 228 persons for every square mile,^c a result from which some notion may be inferred of the wealth and fruitfulness of these provinces. To these possessions must be added the principality of Neuchatel, of which the surface is not less than 324 English square miles,^d and the population amounts to 51,500 inhabitants. All these dependencies of the Prussian monarchy, equal in superficial extent to 13,800 English square miles,^e are peopled by 3,146,500 individuals. The route which we mean to follow in our description of them, may be traced from north to south, because it is towards the north that they are least remote from Prussia Proper.

The province of Westphalia comprehends the principalities of Munster, Minden, and Paderborn, and the territories

of Mark, Hohen-Limburg, Ravensberg, Tecklenburg and Lingen, which are so many possessions that Prussia has lately recovered, together with the extensive districts that have been added to them. The same province is bounded on the west and the north by the Netherlands and Hanover, on the east by Hesse, the principality of Waldeck, and the grand dutchy of Hesse-Darmstadt, and on the south by the province of Cleves and Berg.

The country was in ancient times peopled by the *Bructeri*, *Marsi* and *Sicambri*, all branches of the Franco-Saxon stock. It appears from the statements of Tacitus and Strabo, that the Bructeri inhabited the country between the Ems, the Lippe and the Rhine, while the Marsi occupied the present territory of Munster, and the Sicambri possessed the lands on the left bank of the Lippe.^f Of all these people the Bructeri were the most powerful; they were divided into two branches, the Great and the Little Bructeri.

All the eastern and southern part of the province is covered with mountains which form two distinct chains. The Ebbe mountains, which extend from east to west, are the natural limits on the south. To these heights other mountains are attached, namely, the Rothhaar and the Egge, which extend from south-west to north-east to the distance of eighty miles.^h Several rivers descend from the chain, such as the Lenne and the Ruhr, which unite and throw themselves into the Rhine, the Lippe, which conveys its waters to the same river, and, lastly, the Ems, which, although of secondary importance, flows directly into the ocean.

According to the observations of M. Omalius d' Halloy, the rocks in the neighbourhood of Minden, belong to a secondary formation, analogous to the limestone of Jura. The country of Munster, and the territories watered by the Ems and the Lippe, are formed by deposits similar to those in the vicinity of Paris. A secondary calcareous zone, of a formation analogous to that of chalk, extends from west to east between the Lippe and the Ems, over the whole breadth of the province; lastly, the Ebbe, Rothhaar and Egge mountains make up a vast district, in which are observed granite, and other rocks of a date anterior to the formation of organized matter, and also some of the more ancient deposits containing organic remains.

But if these different formations be examined more minutely, and additional light has been obtained by the scientific researches of M. Von Buch, it may be seen that many

^a "Length, about 80 leagues; breadth, nearly 30 leagues."

^b "2261 square leagues."

^c "1369 per sq. league."

^d "39 sq. leagues"—at the rate adopted by the translator, in the extent of the Rhenish provinces, of six sq. miles per sq. league, as above; in the Eng. edition 234 sq. miles. Extent 340 sq. miles. (Morse.)—P.

^e "2300 sq. leagues."

^f Strabo, Book VII. chapter ii. Tacitus, Ann. Book I. chapter lx. De Moribus Germanorum, 33.

^g See the learned work entitled: *Germanien und seine bewohner*, by A. B. Wilhelm.

^h "About 30 leagues."

parts of the country are valuable from their mineral productions. Thus, between the Lippe and the Ruhr, the calcareous zone, which has been already mentioned, consists chiefly of compact limestone, in which various mineral substances are found in abundance. The limestone rests on a vast deposit of coal, which commences near Essen and Mulheim in the province of Juliers, Cleves and Berg, and is continued to the base of the Rothhaar mountains, covering an extent of more than thirty miles^a in length. To the south of the coal, and among the granitic formations, are observed strata of primitive limestone, well adapted for different purposes in the arts, and also other calcareous deposits containing organic remains, and affording excellent lime. Enough has been stated to show that the mineral riches in the province of Westphalia, are by no means unimportant; we shall now give some account of its principal towns, and of whatever is most worthy of notice in their vicinity.

The province is divided into three governments, of which the chief towns are Minden, Munster and Arnsberg. Minden, a fortified town, is watered by the Weser; it is important on account of its commerce, it carries on an extensive trade in wax candles, soap, tobacco, linen and woollen stuffs, and it is supposed that the produce of its sugar works is worth annually about £25,000. It is peopled by more than eight thousand inhabitants, and situated in a pleasant country; a bridge, six hundred feet in length, and twenty-four in breadth, has been built on the river, which flows past its walls. There are three Catholic churches, two Lutheran and one Calvinist; the Catholic cathedral is more admired than any church in the town. Among the different institutions are a gymnasium, a normal school, an orphan hospital and a bible society. The salt springs of Frederick William, not far from Eidinghausen, are situated in the neighbourhood, and yield annually 1,383,065 cubic feet of coarse salt, and 47,134 of a finer quality.^b The domain of Boehlhorst, from which an immense quantity of coal has been obtained, lies near Minden, and, lastly, not far to the south-west of the same place, is situated the small town of Enger, in the church of which may be seen the monument that was erected in the year 1377 by the emperor Charles IV. to the memory of Wittikind the Great.^c

Herford or Herforden^d is built in a low and marshy plain in the direction of Paderborn. It is a town of 6000 inhabitants, watered by the Werra and the Aa, and encompassed by old ramparts, now changed into gardens and public walks. There are seven churches in the town, a gymnasium, several spinning mills, and different manufactories. Bielefeld, which is sheltered by a hill, contains the same number of inhabitants as Herford, two Lutheran, a Calvinist and a Catholic church, a synagogue, an orphan hospital and a gymnasium. The linen that is exported annually, has been said to be worth 500,000 dollars. A great many of those tobacco pipes made of silicated magnesia, a substance known in commerce by the name of *écume de mer*,^e are sold in the town.

Paderborn is equal in population to both the two last towns; it is the metropolis of an archiepiscopal see,^f and

^a "12 leagues."

^b "Sel brut—sel épuré"—crude and purified salt.

^c Enger is 20 miles S. W. of Minden. It is said to have been the ordinal residence of Wittikind.—P.

^d Hervorden.

^e Germ. *Meerschaum*, (literally sea-foam.)

^f The see of a Catholic bishop. (Hassel.)

^g Its Latin name is *Monasterium*; its former name, Monigroda or Monigroda. *Moreri*.—P.

^h *OL. II.—NOS. 115 & 116.*

the supreme court of the government is held in it. It possesses a gymnasium and an ecclesiastical seminary. The principal source of the river Pader rises within its walls, and in the neighbourhood of the cathedral. At no great distance from the town near the forest of Teutoburg, is situated the field of battle, where Arminius or Hermann defeated the legions of Varus about the tenth year of the Christian era. *Ræmerfeld* (field of the Romans,) the name of the hamlet, serves still to transmit the memory of the event. The rivulet called Bullerborn flows near the village of Altenbecken; it issues with a loud noise from a mountain, and disappears shortly afterwards under ground. The ore, obtained from Mount Reh, is used in the iron works near the rivulet. The small town of Driburg is situated at four leagues to the east of Paderborn, and on the eastern declivity of Mount Egge; it has been much frequented on account of its baths and mineral springs. At a short distance from it are seen the ruins of the castle of Iburg, which was destroyed by Charlemagne.

Munster, the metropolis of a government, the capital of the province, and the seat of a supreme court of justice, was formerly an important fortress. It is said that it was founded by Charlemagne, who, to bring about the conversion of the Saxons who chose rather to die than become Christians, built in that situation a monastery, and the Latin word *monasterium* appears to have been the origin of its German name. But it is the opinion of others that the town was not founded before the eleventh century, and that it was originally called *Mimigardevordia*.^g If it be true that it was originally a convent erected in order to extend and diffuse Christianity, it is certain that it has expressed more than once, its decided opposition to the temporal power of its sovereign bishop. The famous Boccold, surnamed John of Leyden,^h made himself master of the town in the sixteenth century. After the punishment of that fanatic, the townsmen wished to become free, but were compelled to submit to the authority of their bishop, and a fortress was erected to keep them in subjection. Munster is pleasantly situated on the Aa, which throws itself a short way below it into the Ems. A canal of the same name renders its commerce very active, and its population is considerable; Hassel estimates it at nearly 18,000 inhabitants, almost all of them Catholics. It is at present the residence of an archbishop,ⁱ and his chapter consists of forty canons. The town is well built; it contains ten churches; on the tower of the church of St. Lambert are still seen the three iron cages in which John of Leyden and his two accomplices were confined. Some of the conditions relative to the treaty of Westphalia were signed in the townhouse in the year 1648.^k The ramparts have been changed into agreeable walks. It possesses an university,^l that is attended by four hundred students, more than a hundred of whom are foreigners. The other establishments, connected with the instruction and amusement of its inhabitants, are a botanical garden, a library, an academy of painting, an anatomical theatre, a veterinary school, a German theatre, and two casinos.

At ten leagues from Munster is the small town of Borken, which belonged to the prince of Salm-Salm, who changed

^h Leader of the Anabaptists.

ⁱ Bishop. (Hassel.)

^k The treaty between the king of France, the emperor of Germany, and the electors and princes of the empire, was settled at Munster; that between Sweden and the emperor at Osnabruck; both combined constituted the treaty of Westphalia.—P.

^l The Catholic university at Munster was suppressed in 1818, and its funds divided between the Catholic theological seminary at Munster and the gymnasiums at Munster and Paderborn.—P.

his residence to Bocholt, and ceded the town in 1816 for an annual revenue of 22,000 florins. The two last towns are peopled by two or three thousand inhabitants, but there are other places which may be mentioned in the same government. Warendorf contains a gymnasium and 4000 inhabitants. Kœrfeld, situated between two hills, is the residence of the prince of Salm-Horstman; the population amounts to 4500 individuals. Steinfurt, which belongs to the prince of Bentheim-Steinfurt, is watered by the Aa, and contains 2000 inhabitants; strangers resort to its gymnasium. All these towns carry on a trade in linen and other manufactures.

Arnsberg or Arensberg, the capital of a government, is a small town containing hardly 3000 souls. Built on a hill, and almost wholly encompassed by the Ruhr, its situation is mountainous and romantic. The river water is not of a good quality for domestic purposes; a better kind may be obtained, but not always in sufficient quantity for the wants of the inhabitants.^a Among the useful institutions are an agricultural society and a gymnasium. The industry of the people has been long confined to the distillation of spirits, and to a trade in potash, of which the annual product is said to amount to £6250.

Soest is a place of much greater importance than Arnsberg, for it contains more than double the number of inhabitants. It has an imposing appearance at a distance, from its ancient ramparts and numerous turrets. The Catholic and Protestant clergymen live together on the most friendly terms; their example seems to prove the possibility of uniting the different Christian sects. Service is performed in the cathedral on one Sunday by Protestants, and on the other by Catholics. It is not less true than remarkable, that in this town at least, difference of opinion on religious subjects, does not give rise to jealousy, animosity and the bad passions so common to churchmen. There are in Soest two convents, seven Lutheran churches, a Lutheran college, and an hospital for the poor and orphans. Its commerce consists principally in cloth, leather and the produce of the country in the neighbourhood.

Hamm, situated at the confluence of the Asse and the Lippe, is surrounded with ramparts, which are now changed into public walks; it possesses a Catholic, a Lutheran, and a Calvinistic church; its other institutions are an agricultural society, one of political and rural economy;^b and a gymnasium in which youth are well educated. The industry of the town has been chiefly directed to manufactories, bleaching cloth and dressing leather. A great quantity of bacon is every year exported from it, principally to Holland. The population amounts to about five thousand inhabitants. Unna carries on a trade in pottery, beer and spirits, and it derives a great revenue from the salt springs of Brockhausen in the vicinity. The population is not less than 3500 souls; there are three churches and a gymnasium. Dortmund, formerly a free and fortified town, contains at present only 4500 inhabitants. A supreme council of the mines meet there, and many pupils attend its gymnasium; there are not fewer than six churches, four of which belong to the Lutherans, one to the Calvinists, and another to the Catholics. The pins and different articles of cutlery that are made in the town, its breweries, its spirit

and vinegar distilleries, and lastly its hundred and fifty looms, are said to return considerable profits. It may be remarked indeed that there are few towns or even villages in this government, of which the inhabitants are not engaged in some branch of industry. Iron and other metals are worked in the different places that are now to be described. Hagen may be mentioned not only for its cloth and paper manufactories, but also on account of its iron works, from which are exported pitch forks, scythes, sickles and different implements of husbandry to the amount of £8400,^c a sum not nearly so great as that obtained for its files, saws, knives, fire-irons, stoves, anvils and coffee-mills. The small town of Schwelm, in which the number of inhabitants amounts to 2800 souls, a population not much greater than that of the preceding, carries on nearly the same sort of trade, and possesses in addition linen manufactories, soap works, breweries and distilleries. Altena contains about 3400 individuals; there are not fewer than 104 mills in which iron wire is drawn; five hundred workmen are employed in making knitting-needles, pins and thimbles. The sum obtained for the articles exported, may perhaps exceed £100,000.^d Iserlohn is situated in a mountainous and unfruitful district, but its wealth depends on the industry of its inhabitants; its population is not greater than 5400 souls, and the number of Lutherans may perhaps be equal to that of the Catholics.^e It appears from a statistical account that there are fifty-one mills for making that sort of iron wire, used in the machines for carding cloth, and that more than two hundred workmen are employed in making thimbles, and more than a hundred in making coffee mills. It exports more than £2200 in pins, and about £9000^f in brass mountings for snuff-boxes, canes and other articles of a like description. Its metal buttons, buckles and chains are much prized; the brass of which these different articles are made, is obtained from four founderies in the neighbourhood. Besides what has been already enumerated, the paper, velvet and silk manufactories of the same place might be mentioned. All these articles keep up the commerce of more than sixty mercantile houses, that correspond with France, Italy and different countries in the north.

The small town of Limburg or Hohen-Limburg, which is situated in the county of Bentheim-Tecklenburg, carries on the same sort of trade; nails also form part of its exports. Olpe on the Bigge contains only 1600 inhabitants, but it possesses more than fifty forges for iron bars, about thirty for steel, fifteen manufactories of tinned iron, and two copper founderies, in both of which planchets for coining money are made, and in some years more than 3000 hundred weights^g of them have been exported to foreign countries. So much industry concentrated in a small town, where the different works are supplied with the metals obtained within its territory, has induced government to establish there a tribunal that presides over the mines. Siegen, a town of 3800 inhabitants, with a castle and public gardens of the Sieg, has been chosen for the seat of a royal tribunal; one of its buildings is a large gymnasium. Many forges and founderies have been built in the town, but there are also soap works, woollen, linen, and other manufactories. The neighbouring country abounds with quarries of slate and mines of different metals. Mount Stahlberg is situated at a short dis-

^a "A single hydraulic machine furnishes the town with but a scanty supply of water."—This machine is employed in raising water from the Ruhr. Encyc. Method.—P.

^b "Une société d'agriculture et d'économie."

^c "Nearly 200,000 francs."

^d "The articles exported amount to more than 2 millions" [francs.]

^e "Half Lutherans, half Catholics."

^f "More than 50,000 and 200,000 francs." ^g "15,000 kilogrammes."

tance from the village of Mosen; it is almost wholly formed of proto-carburet of iron, or natural steel, which has been considered by good judges to be the best in Europe for many purposes. The other mines that are worked in the district of Siegen produce annually 700 marks of silver, 300 quintals of copper, and 400 quintals of lead.

The province of Juliers, Cleves and Berg comprehends the ancient dutchies of Cleves and Gelders, the principality of Mœrs,^a the counties of Essen and Werben, the grand dutchy of Berg founded by Napoleon, and a part of the dutchy of Juliers. It is bounded on the west and the north by the Netherlands, on the north-east and the east by the province of Westphalia, and on the south by that of the Lower Rhine. It is divided into two governments, those of Cologne and Dusseldorf.

The ancient German people who inhabited the province, may be mentioned on account of their connexion with the Romans, and the share they had in the wars, which Rome maintained in the countries that are watered by the Rhine. The *Ubii* and the *Gugerni* were the most important tribes on the left bank of the river. The *Usipetes*, the *Tencteri* and the *Sicambri* were settled on the right bank. Some information may be obtained concerning these imperfectly civilized nations from the writings of ancient authors, and from the learned researches of M. Wilhelm.^b

The *Ubii* whom Tacitus calls the *Agrippinenses* were the neighbours of the *Gugerni*.^c They inhabited the country, which now forms the territory of the Mœrs. Exposed to the incursions of the Sœvi, who exacted tribute, or threatened to destroy them, they were compelled to implore the assistance of Julius Cæsar, at that time stationed on the opposite bank of the Rhine.^d It appears too that they were induced, in consequence of new attacks on the part of the Sœvi, to place themselves under the protection of Vipsanius Agrippa, who granted them lands on the left bank of the river in front of their ancient territory. In removing to their new country, they probably passed the bridge which had been built across the Rhine by Agrippa. If the *Ubii* were enabled to migrate, it was owing to the good intelligence that subsisted between them and the Romans; at all events, both Strabo and Suetonius inform us that the *Ubii* were the faithful allies of the Roman people. It was in consequence of their alliance with Rome that they were involved in several wars against their neighbours, and it is not less certain that they preferred the Roman name of *Agrippinenses*, which they derived from the wife of Claudius, to the German one of *Ubir*, which probably denoted a people on the banks of a river;^e indeed every river in Germany was then called *Ob* or *Ub*.

The *Gugerni* were one of the German tribes whom Tiberius had permitted to settle on the left banks of the Rhine, eight years before the Christian era. They were among the descendants of those Sicambrians, who in the time of Julius Cæsar, inhabited the country between the Sieg and the Lippe. The amount of their population was not greater than 40,000 individuals. They agreed before they mi-

grated to their new country to defend it against the incursions of their neighbours on the opposite bank of the river. Their territory extended from that branch of the Rhine, which is called the Waal, to the districts in the neighbourhood of Mœrs. These lands were previously inhabited by the *Mœnapii*, who had a share in the revolt of the *Batavi*, under the command of Claudius Civilis. Their German name, *Gugerner*, which the Romans changed into *Gugerni*, was derived, says M. Wilhelm, from *gairnjan*, an old German word, which signifies to ask,^f and thus indicates that they settled voluntarily in the countries subject to the Romans.

The *Usipetes* were one of the earliest German tribes that the Romans met with on the left bank of the Lower Rhine. Compelled to fly from the incursions of the *Sœvi*, they settled in the country about the fifty-sixth year before the Christian era. They continued formidable to the *Batavi*, until the time that Cæsar subdued them^g and forced them to cross the Rhine. They settled on the south of the Lippe, in the country which the *Sicambri* inhabited, not far from the lands of the *Tencteri*, who had shared with them the dangers of their expedition, and the consequences of their defeat.

Tacitus commends the cavalry of the *Tencteri*. "To ride well," says the historian, "was a source of amusement for children, and of emulation for youth, and was not neglected by the old. The horse was the only part of their possessions, that did not descend after the decease of its owner, to the eldest son, but was given to him who distinguished himself on the field of battle."^h

The *Sicambri*, who ceded part of their territory to the *Usipetes* and *Tencteri*, were a very powerful and numerous people in Germany. They were one of those tribes whom Pliny designates under the name of *Isthævones*.ⁱ They were conquered by Drusus in the twelfth year before the Christian era.

From the neighbourhood of Cleves to Cologne, the lands on both banks of the Rhine are for the most part of a later origin than the chalk formation.^k From Cologne to two leagues below Bonn, or in other words, to the southern limits of the province, the tertiary rocks extend over a breadth of more than five leagues on the left bank of the Rhine, while their greatest breadth on the opposite bank is hardly more than a league. On the same side may be observed the commencement of the volcanic lands and extinguished craters, which, in the neighbourhood of Coblenz, occupy a considerable extent on both sides of the river. On the left of the Rhine, or in the country between the Rhine and the Erft, that throws itself into it, and from the distance of a league to the north of Cologne, to nearly the same distance to the south of Bonn, a belt of land wholly composed of the different kinds of sandstone known by the names of *macigno* and *mollasse*,^l and of plastic or potters' clay,^m extends to the length of nearly twenty-six miles.ⁿ Lastly, only a few detached portions of the same formation are observed on the right or opposite bank of the Rhine.

There are many ancient ruins and places of which the

^a Mœrs, Meurs, Murs.

^b Germanien und seine Bewohner, 8vo. pages 111, 114, 138, &c.

^c Tacitus, De Moribus Germanorum, sect. 28. ^d A. C. 54.

^e "People riverain"—Qu. Germ. *ufer*, shore, bank.

^f "*Gairnjan*, demander"—Mod. Germ. *be-gehren*, to desire, to demand, and *gern*, willingly. Their name may be therefore rendered, *volunteers*.—P.

^g Cæsar's Commentarii, lib. IV. § 15.

^h Tacitus, De Moribus Germanorum, sect. 32.

ⁱ Pliny, Book IV. chapter 14.

^j "They belong in general to the tertiary period."

^k Classification et caractères des roches, par Al. Brongniart.

^l The formation here indicated is the lowest of the tertiary formations. It is the first tertiary sandstone of Boué, and the plastic clay and sand of the English geologists. *Macigno* is an Italian, and *mollasse* a French term, for sandstones belonging to this formation. *Plastic clay* is a term technically used for an unctuous and tenacious clay which composes the greater part of this formation in the London basin, while the term *potters' clay* is applied to any clay proper for the fabrication of pottery, without regard to its geological relations.—P.

^m "10 leagues long, from north-west to south-east."

names still attest the power of the Romans; in this point of view the country is not uninteresting to the antiquary and historian.

The government of Dusseldorf shall be first described. Cleves or Kleve^a is divided into the high and low town; it is situated on the Kermisdal, at a league from the Rhine, and in the midst of a fertile country. It is built on the declivities of three hills, and its name appears to have been derived from the Latin word *clivum* (the side of a hill,) from which probably the Romans formed *Clivia*. It is peopled by 7000 inhabitants, who consist of 5000 Catholics, 1000 Calvinists, 800 Lutherans, 40 Mennonites, and 160 Jews. It contains a gymnasium, a fine townhouse, and different manufactories, such as silk and woollen. The town is surrounded by verdant hills, agreeable vallies, meadows and fruitful fields. A great many towns and villages may be seen in clear weather from the top of the tower, which commands the old town. The time that the tower was founded, cannot be ascertained, but it is said to have been built three centuries before the Christian era; the accuracy of the statement, however, may be considered extremely doubtful. At the distance of less than a mile from the town, a large space of ground has been laid out into gardens, that many frequent on account of their agreeable situation and a famous mineral spring.

Reichwald, an ancient sacred wood, the *sacrum nemus* mentioned by Tacitus,^b is situated in the territory of Cleves; it was there that Claudius Civilis excited the Batavi to revolt against the Romans. Emmerich on the Rhine is remarkable for a basin which may contain about a hundred trading vessels. The town is peopled by 4400 individuals; it has a gymnasium and a seminary. Wesel, which was only a village in the beginning of the twelfth century, contains at present 12,000 inhabitants, many of whom are occupied in different manufactories, by means of which an active trade is carried on with the Netherlands, so that vessels loaded with merchandise depart almost every day from its harbour on the Rhine to that country. The town is surrounded with fortifications, and defended by the fort Blücher, which rises on the left bank of the river. It possesses two Catholic parishes, a Lutheran and a reformed church, a gymnasium, a seminary, and a theatre.

Xanten or Santen contains a reformed and a catholic church; the latter is adorned with some valuable paintings by John Calcar. It is believed that the Roman town called *Ulpia Castra* was situated in its vicinity; and at a quarter of a league beyond it, near the village of Wisten, is the site of *Vetera Castra*, a town noticed by Ptolemy, and frequently mentioned in that part of the writings of Tacitus, which contains the history of the rebellion of Claudius Civilis.^c Although the historian informs us that at the approach of that chief, the ramparts and entrenchments were repaired, and all the buildings erected in the form of a town near the fortifications were demolished, the foundation and remains of an amphitheatre are still to be seen. Antiquaries have discovered at some distance from these ruins, and not far from the village of Kellen, the position of *Colonia Trajana*, a Roman town. It is said too that the remains of a prætorium have been observed on the hill of Vorsten at a quarter of a league from Santen. It may be doubted whether the town of *Colonia Trajana* and a prætorium were built on

these sites, but it is certain that the remains of Roman buildings, tombs, urns, medals and baths have been discovered near them.

The small town of Geldern^d is remarkable for its townhouse, a large and fine building. Moers or Meurs is situated on the Kemelt, at a league from the Rhine; its fortress was razed in 1764; its population amounts at present to only 1800 individuals. It is built near the village of Asberg, which is believed to be the ancient *Asciburgium*, a town mentioned both by Ptolemy and Tacitus. The lions that now adorn the townhouse of Moers were dug from the ruins in the village. Among the other articles that have been preserved are two stones on which the names of two centuries are inscribed, and several Roman tombs, vases, lamps, arms and medals. Kempen is not so much known from its castle, manufactories and a population of three thousand souls, as from being the birth-place of a celebrated Augustine, the author of the *Imitation of Jesus Christ*.^e Duisburg, which contains 4500 inhabitants, is pleasantly situated between the Ruhr and the Anger, at a half a league from the Rhine. The neighbouring country consists of woods and fertile plains. The principal buildings are an university, a gymnasium, an orphan hospital, and the fine church of Saint Saviour. It is a place of some importance from its cloth, linen and soap manufactories, of which the annual produce has been estimated at more than 100,000 rix-dollars. The quantity of tobacco manufactured and exported every year is supposed to be worth 150,000 rix-dollars. The principal part of its trade is carried on with the Netherlands. There are two iron works and founderies in the neighbourhood from which more than 2,000,000 pounds of iron are obtained, and which supply a royal manufactory of arms. Crefeld^f has now become a flourishing town; the soil is marshy and ill adapted for agriculture, but it has been improved by the industry of its inhabitants, and the lands in the neighbourhood are at present covered with gardens, country houses and manufactories. Neuss, which is watered by the Erft, and contains 6000 inhabitants, is dirty and ill built. It is supposed by some that it was founded by Drusus. The capital of the province is situated in the vicinity, but on the right bank of the Rhine.

Dusseldorf holds the first rank in the government; its wealth and a population of 26,000 souls, render it one of the most important towns on the Rhine. Its name is derived from the Dussel,^g a small stream that alone watered it, before it extended to the banks of the river. Dusseldorf was merely a village at the commencement of the thirteenth century, when the duke of Neuburg, elector palatine, fixed his residence there, and enlarged it. The greater part of it consists of three divisions or rather three towns built at different periods. The first is called *Allstadt* (Old Town,) the second, *Carlstadt* (Charlestown,) and the third *Neustadt* (New Town.) Its fortifications were destroyed at the time that the French republic was extending its victories on the banks of the Rhine. Ruins are all that remain of its castle, which was bombarded in 1794, but in the midst of these ruins, the spectator observes with amazement an entire statue of the elector John William, sculptured in white marble by Coipel. The same sculptor made the bronze equestrian statue of the same prince for the great square, which it still adorns. The large street,^h in which many of

^a Germ. *Cleve*, Du. *Kleve*.

^b Tacit. *Histor. lib. iv. sect. 14.*

^c *Hist. lib. iv. v.*

^d Germ. *Geldern*, Du. *Gelder*, Fr. *Gueldre*, *Gueldres*, Eng. *Gelders*, *Guelders*.

^e Thomas à Kempis.

^f Crefelt.

^g "Its name signifies, village on the Dussel!"—(Germ. *dorf*, village.)

^h "The great street of Neustadt."

the houses may be compared to palaces, is not the only one that can be mentioned for its regularity. The most remarkable public buildings are the mint, the barracks, two of its fifteen churches, namely, the collegiate church, which contains the marble monument erected to the memory of Duke John, and that which belonged formerly to the Jesuits. Among the useful establishments are an hospital for the poor, an academy of arts and trades, another of painting and design, a gymnasium, several libraries, an observatory, two colleges and a school of medicine and surgery. The trade of the town is considerable; it possesses refineries of sugar, and manufactories of glass, silks and woollen stuffs.

Elberfeld, which contains sixteen thousand inhabitants, among whom are seven thousand Calvinists, six thousand Lutherans, and three thousand Catholics, is situated on the Wipper, a feeder of the Rhine. It manufactures annually about £24,200^a in lace; six hundred looms and two thousand workmen are employed in manufacturing silks, and nearly an equal number in its linen and cotton manufactories.^b It has been said that a machine is erected in one of its works, by which, with the assistance of two persons, a hundred yards of lace^c can be woven in an hour. Among the other articles that are made, are a great variety of plated goods, and others of a metallic composition imitating silver. The capital of the different banks at Elberfeld has been supposed to be equal to £13,480,000; these establishments are supported by the industry and commerce of the town.^d Stein remarks rightly,^e that the love of labour is so much diffused in the neighbourhood of Elberfeld, that not less than sixteen thousand persons find the means of subsistence on a surface little more than a German square mile, or twelve English square miles in extent.^f A thousand manufactories, mills or machineries have been erected on the plain through which the Wipper flows, and which is hardly six miles in length.^g Elberfeld and its environs seem to form only a single city, but it is not less distressing than remarkable to observe the great number of poor and indigent persons in the midst of this industrious population.

The arms and cutlery of Solingen have been famous for more than five hundred years; it is peopled by 3500 inhabitants, and in the twenty-three manufactories in the town and neighbourhood, more than two thousand workmen have been for a long time employed in making swords, knives and different articles of cutlery. Its trade, though by no means improved by the last political changes on the banks of the Rhine, and the custom-house system which was then established, is still very considerable.

Hassel estimates the number of inhabitants in Koelln or Cologne, at 56,400. Thus, its population is sufficient to place this metropolis of a government in the first rank among the towns on the banks of the Rhine. If Cologne was built like Dusseldorf, and peopled in the same proportion, it might be compared with the finest cities in Germany. But its narrow and dismal streets, its Gothic houses, some of which are built of brick, others of wood, and only a small number of stone, give it a gloomy and disagreeable appearance, that contrasts ill with the public buildings.

^a "560,000 francs."

^b "3000 machines are employed in its cotton manufactories."

^c "A thousand ells of galloon (*galon*.)"

^d "The banking business in Elberfeld amounts to more than 440 millions [francs.]" Such is the statement in the original, which would of course give 27,500 francs to each individual!—P.

^e Handbuch der Geographie und Statistik, &c.

^f "On a square mile or a little more than two leagues and a half"

The principal edifices are the townhouse, which is adorned with a double range of marble columns, the central school or ancient college of the Jesuits, the arsenal, the palace of the ancient electors, the church of St. Gereon, of which the cupola is much admired, that of the Minorites, not less remarkable on account of its portal, and lastly, the cathedral, built in the thirteenth century, and which, if finished, would be the finest of any in Cologne.^b The interior of the cathedral is large and imposing; it is four hundred feet¹ in length, a hundred columns support the vaulted roof, and the choir, in which the elegance and boldness of the execution cannot escape notice, reaches to the height of two hundred feet. The church of St. Peter, where Rubens was baptized, is adorned with the fine painting by that master, representing the martyrdom of the apostle Peter, a painting that remained there until 1794, when it was carried to the Louvre, and twenty years afterwards, brought back to Cologne. Some of the twenty churches in Cologne, contain a great number of relics, that are held in veneration by a credulous people. Those in the cathedral are the bones of the twelve apostles, the crosier of St. Peter, the magnificent shrine of Saint Engelbert, and the sarcophagus of the Three Magi, which is distinguished by the beauty of its sculpture, and the costliness of its ornaments. In the church of St. Ursula are preserved the bones of that saint, and those of the eleven thousand virgins, her supposed companions; their skulls are arranged in order, round the walls of a small chapel within the church. These objects of popular superstition, together with the churches which were formerly twice as numerous, and the doors of which are still beset by a crowd of mendicants, are likely to impress the stranger with no very favourable notion as to the knowledge and education of the people in Cologne. It is believed that the Protestants form but a very small part of the inhabitants, and indeed it has been ascertained that there are not more than two thousand Calvinists. The industry of the town is insignificant in proportion to its population, a truth that may be confirmed by the low state of its trade and manufactures. There are however several scientific institutions, among others a college with a library of sixty thousand volumes, another library containing thirty thousand, a collection of philosophical instruments, a botanical garden, in which the number of plants amounts to more than four thousand, an anatomical theatre, a mineralogical cabinet, and a gallery of paintings. There are not fewer than twenty hospitals, an infirmary and a lunatic asylum, most of which were founded by charitable persons.^h It is unnecessary to say much of its theatre and other places of amusement. This town, encompassed with ditches and old walls, flanked with towers, of which the extent may be equal to two leagues in circumference,¹ is a place of great antiquity. It is supposed to have been the capital of the Ubii (*Oppidum Ubiorum*), of which the name was changed into *Colonia Agrippina* in honour of Agrippina, who was born within its walls, and who enlarged and improved them. Several remains of antiquity may still be observed, among others, the ruins of an ancient Roman forum; the church

^g "There are a thousand manufactories (*fabriques*) on a surface of two leagues in length, in the plain watered by the Wipper."

^h "— would be a magnificent monument." Had the design been carried into execution, it would have formed one of the finest and most stupendous Gothic edifices in Europe. Ed. Encyc.—P.

¹ French measure.

^k "Among the useful establishments are more than twenty hospitals, an orphan-house, a founding hospital, a school of midwifery, and a lunatic asylum."
¹ 10,326 yards or nearly 6 miles. Ed. Encyc.

of St. Peter was built on the ruins of a heathen temple, and the site of the Roman capitol may still be seen.

Cologne was styled a municipal town, and capital of Second Germany,^a in the reign of Claudius. The Romans were driven from it by Merovæus,^b king of the Franks, in the year 449; not long afterwards it was ruined by Attila, and again rebuilt by the Romans. Chilperic took possession of it, and it became the capital of the kingdom of Cologne, which continued until the time it was conquered by Clodowig or Clovis, who united its territory to that of France. The kings of the first race used to reside there; Charlemagne himself often preferred it to Aix-la-Chapelle. It was declared a free and imperial town during the reign of Otho the Great, in the year 957. It was surrounded with walls by the Archbishop Philip of Heinsberg in 1187. It entered into the Hanseatic league in 1260, and in the fourteenth century its archbishops were raised to the electoral dignity.^c Lastly, under the French usurpation, it was made the capital of a division^d in the department of the Roër.

The trade of Cologne consists in woollen stuffs, ribbons and pottery; there are besides several distilleries, and the most important are those of the spirit which bears the name of the town;^e but that which contributes most to enrich it, is its harbour on the Rhine, for it is thus rendered the intermediate station^f of a considerable trade with Germany and the Netherlands. Rubens, Cornelius Agrippa and the founder^g of the Carthusian order^h were born in Cologne.

Worengen, at some distance to the north of Cologne, is built on the scite of the ancient *Buruncum*, where a detachment of the seventh legion was quartered. Several Roman ruins are still observed in the neighbourhood. Zulpich is the *Tolbiacum* of Tacitus, a town celebrated during the middle ages on account of the victory which Clovis gained over the Germans, and which was one cause of his conversion to Christianity.

Bonn, the ancient *Bonna*, opposite to which, according to Florus, Drusus built a bridge over the Rhine, is situated on the left bank of that river, about five leagues distance to the south of Cologne. The beauty of its situation induced the ancient electors to choose it for their residence. Its population, according to Hassel, amounts to 10,566 inhabitants; it is well built and the streets are spacious.ⁱ As to its public buildings, we may mention four of its churches, a town-house of modern architecture, a hospital, a college and a theatre. Its castle, a large and elegant building, is now converted into an university, which was founded in 1818. It contains a library of 25,000 volumes, a museum of natural history and other scientific collections. An ancient monument, possessing considerable interest, may be seen in the square of Saint Remi. It is formed by a number of pillars, and consecrated to victory; the following words are inscribed on it, *Deæ victoriæ sacrum*. Some antiquaries consider it the *ara Ubiorum*, mentioned by ancient authors; but the subject has so much puzzled archæologists that none

have hitherto ventured to determine whether it was originally erected at Cologne or Bonn.^k A large piece of ground near the town belongs to an agricultural school; the different nurseries and collections of plants in that establishment are laid out in public walks. The small town of Brühl is not more than two leagues distant from Bonn; its mineral springs are much visited, and it is also well known on account of the magnificent castle of Augustenburg. Antiquaries insist that Trajansdorf is the correct name of the small village of Traunsdorf at no great distance from Bonn. The number of Roman antiquities that have been found there, and other reasons, render it probable that it was the *Castrum Trajani*. Bonn carries on a trade in coarse cotton, soap and nitric acid. Salmon weighing forty or fifty pounds are often exposed in its markets; they are taken in the Sieg, a river that waters the small town of Siegburg, situated about six miles from Bonn on the right bank of the Rhine.

The province of the Lower Rhine comprehends the greater part of the former French departments of the Roër, the Rhine and Moselle, and the Sarre, and also a portion of the department of the Ourthe. It is bounded on the west and the north by the Netherlands, on the east by the governments of Dusseldorf and Cologne, the principality of Nassau, the grand dutchy of Hesse-Darmstadt, the landgraviate of Hesse-Homburg, the principality of Birkenfeld, and the circle of the Rhine, a Bavarian province, and on the south by France. Its extent is about a hundred and thirty-eight miles from north to south, and sixty-four at its greatest breadth from east to west.^m Its surface is nearly equal to four thousand eight hundred English square miles.ⁿ It is divided into three governments, of which the chief towns are Aix-la-Chapelle, Coblentz and Treves.

The *Eburones* and *Treveri* were the ancient German people, that inhabited the large forests in the province. The former were scattered on both the banks of the Meuse, and their lands extended to the modern territory of Juliers. They appear to have been the most ancient inhabitants of the country, at least no mention is made of any others that possessed it before them. Their principal fortress is called *Atuatuca* in the commentaries of Cæsar. They acted an important part in the war against the Gauls, and gained under the command of Ambiorix, a complete victory over a Roman legion;^o but being defeated at a later period by Cæsar, they gave up their country to the Tungri.

The *Treveri* were a powerful and warlike nation; Cæsar commends their cavalry, it was formidable to the Romans.^p The same people, according to Tacitus,^q boasted of being sprung from the ancient Germans. They were one of those tribes, that long before the expedition of Cæsar into Gaul, crossed the Rhine, and settled in the fertile valley of the Moselle. The ancient date of their settlement in the country is proved, as M. Wittenbach remarks,^r by their advancement in civilization, at the time it was invaded by the Romans. They did not then wander in the forests, but

^a *Germania Secunda* seu *Inferior*, one of the seven provinces of Gaul under Probus, A. D. 278.—P.

^b "Mérôwée," Merouée (Moreri), Mérovée (Beauvais)—the founder of the Merovingian dynasty.—P.

^c Sainte Marthe, Gall. Christ. tom. I.

^d "Arrondissement."

^e Cologne water (*eau de Cologne*.)

^f "Entrepôt"—it is the centre of all the commerce on the Rhine. Ed. Encyc.

^g St. Bruno. (A. D. 1086.)

^h *Les Chartreux*, so called from *Chartreuse* in Dauphiny, where the order was first established.—P.

ⁱ "It is well built, and contains many houses remarkable for their ele-

gance."—The streets are narrow and awkwardly built, and besides perpetually intersecting one another, are dirty and ill-paved. Ed. Encyc.

^k G. Ghelen, de admirandâ sacrâ et civili magnitudine Colonia, 1645. Mémoires et Notice de D'Anville, sur les Gaules.

^l D'Anville places the *Ara Ubiorum* at Gotsberg (Godesberg), a hill near Bonn.—P.

^m "55 leagues by 25."

ⁿ "Its surface is estimated at 800 sq. leagues."

^o C. J. Cæsaris Commentarii, lib. V.

^p Idem, ibid. lib. II.

^q De Moribus Germanorum, sect. 28.

^r Abriss der Trierischen Geschichte.

exercised a sort of authority over the *Nervii*, *Ubii*, *Tungri* and *Eburones*, their neighbours. They were not ignorant of the arts, they built towns and they enacted laws.

Their government was an elective monarchy, in which the chiefs shared the power with their sovereign. The prince was supreme judge of his people; he was proclaimed and placed on a buckler, according to the custom of other nations in Gaul and Germany. An assembly or meeting of the nobles formed the senate of the Treveri, and that assembly retained its authority after their country was conquered by the Romans. The Roman senate writing to that of Treves, in the year 275 of the Christian era, designates it in the following way,—*Senatus amplissimus, curia Trevirorum*.

Every man in the nation was bred to arms. A coat of armour was their *toga virilis*; war was the only road to dignity and preferment. They entered so much the more eagerly into battle, because to defend their habitations and country, was considered the most sacred duty. Persuaded that the divinity directed and assisted their efforts, the Treveri kept their arms and standards in places consecrated to the gods. It is probably for the same reason, that during war, the priest of the city, as Tacitus informs us,^a had the sole right to punish the guilty, or to send them before the sovereign judge. According to the religious notions of the same people, bravery was the only virtue which was rewarded after death. The Treveri inhabited a portion of that country, which the Romans called *Gallia Comata* from the long hair of its inhabitants.

Like the other German nations, they were distinguished by their fair complexion and light hair, divided in front, and falling on each side of the face. Some however had their hair knotted or bound at the crown of the head, and all of them wore long beards. The body was covered with a short and wide tunic, over which a woollen mantle was thrown. The dress of the women differed chiefly in its length from that of the men; but as their tunics were without sleeves, their shoulders and arms were not covered. Such are the principal facts that can be collected from the writings of the ancients, concerning the Eburones and the Treveri. The territory situated between the countries of these two people, was inhabited by the *Condrusi* and the *Cæræsi*, who are mentioned by Cæsar,^b and who were in some respects under the government of the Treveri.

Geologists have observed many different kinds of soil and rocks in the province of the Lower Rhine. At its northern extremity are tertiary deposits, or those of the last period, similar to others in the vicinity of Paris. To the north of Aix-la-Chapelle, there is a series of successive formations characterized by the variegated and first tertiary^c sandstones, plastic clay and coal; a large deposit of gneiss extends on the west, and coal and transition limestone^d on the east; lastly, masses of the sandstone, which is known in Germany by the name *quadersandstein*, are found in the south, and are surrounded by transition limestone. On the south-east of Aix-la-Chapelle, from the neighbourhood of Malmedy to the Eifel mountains, there is a formation of schistus and sandstone, in the midst of which a deposit of transition limestone, succeeded by variegated sandstone, stretches from north to south.

The country which extends from Treves to Sarrebruck

belongs to the granitic and coal formations. But the region to the north of the Moselle, including all the eastern part of the province, and the districts beyond the Rhine, has most excited the attention of geologists. That region is formed by different chains of volcanic mountains, that rise in the midst of transition limestone, or such as was formed in the depths of the primitive ocean, which has left so many traces on the surface of the earth. The most important of these chains is the Eifel (*Eyfel-Gebirge*;) many of its volcanic summits are remarkable on account of their height; from one of them, the Kyll, a small river, descends southwards and throws itself into the Moselle.

But before the traveller can arrive in that country, still marked with the action of subterranean fire, he must traverse large downs covered with heath in the neighbourhood of Montjoie, between Eupen and Malmedy. Goldberg, from which a very extensive horizon, bounded by a range of conical summits, presents itself to the view, is the first volcanic mountain that is seen after passing the heaths. At every step the stranger takes in this region, he perceives vast craters or high mountains, which seem to have emitted lava at different periods. Such at least is the opinion of M. Steininger,^e and it must be confessed, if these heights be compared with those of the Puy-de-Dome, that his opinion is not improbable.

We shall commence our account of the different towns with that of Juliers or *Jülich*, which, although it contains only 3900 inhabitants, is important from its commerce, and its cloth and ribbon manufactories. That small city is besides well known from its antiquity. Ammianus Marcellinus speaks of it,^f and it is called *Juliacum* in the itinerary of Antonine.

Aix-la-Chapelle or Aachen,^g the capital of a circle, and the chief town of the province, contains, according to Hassel, thirty-three thousand six hundred inhabitants. But that number is not more than a third part of its population during the period of its splendour, at the time when the German emperors were crowned there, and made it occasionally the place of their residence. It was then enriched by its trade and industry, but strangers are only attracted to it at present by its mineral waters, which, together with its cotton and muslin manufactures, and its trade in watches and jewellery, form the principal source of its wealth. Some authors, who have endeavoured to prove its Roman origin from the antiquities which have been found in it, and from its Latin name, *Aquæ-Grani*,^h maintain that it was founded by Serenius Granus, who lived in the time of Hadrian. It is more likely that before the fifth century it was only a Roman bath or an insignificant town, which was wholly destroyed by Attila, and that the merit of having founded it, is due to Charlemagne. The old ramparts have been changed into public walks, some of the streets are broad and regular, and several public buildings are too remarkable to be past over in silence. The townhouse, flanked with turrets, is not inferior to any in Germany. Lewis the Debonnaire, Charles the Fifth and many other sovereigns were crowned in one of its halls. All its churches are very ancient; that of St. Ulrich has been admired for the height and symmetry of its arches; it may be remarked too that one half of it belongs to the Lutherans, and the other to the Catholics; the interior is adorned with several paintings by

^a *Sacerdos civitatis*. De Moribus Germanorum, sect. 10.

^b Commentarii, Libri II. et VI.

^c "Grès molasse." See note (m) p. 651.

^d "Calcaires intermédiaires."

^e Bemerkungen ueber die Eyfel und Auervergne.

^f Liber XVII. cap. 2.

^g Fr. *Aix-la-Chapelle*, Germ. *Aach*, *Aachen*, Du. *Aken*.

^h *Aquisgranum*, *Aqua*, *Urbs Aquensis*.

Cranach and other celebrated masters. The church of the Franciscans contains one of the finest organs in Germany. Few buildings can be compared with the cathedral, both on account of its magnificent windows, its thirty colossal columns, its bronze portals, and the beauty of its Gothic architecture. It was built by Charlemagne; the white marble chair on which that emperor and the princes who succeeded him used to sit, is still preserved in it. Many relics, of which the authenticity may be doubted, are presented there every seven years to the veneration of a superstitious people, and to a number of pilgrims that crowd together on these occasions. Among the articles exhibited are the robe of the Virgin Mary, the swaddling clothes of Jesus, the bloody linen on which the head of John the Baptist was exposed, and the cincture worn by our Saviour at his crucifixion. The people, one would think, can hardly be at present deluded by such impositions. The skull of Charlemagne, who was buried in the cathedral, may still be seen. His sword, baldric and book of the gospels are preserved in the townhouse, and at every coronation of an emperor, they were sent to the city where the ceremony was to take place.^a The buildings added to the town since the Prussians obtained possession, are an exchange, and a ridotto or assembly room with the exterior surrounded by arcades. The places of amusement are a German theatre, a concert room and a casino. The literary and scientific institutions are not important; they consist of an academy of arts, a college, a school of drawing, and a collection of models relative to the arts and trades. A gallery of paintings is the most valuable collection in the town.

The neighbourhood of Aix-la-Chapelle has been much admired: the land, though not fertile, is well cultivated, and the public walks are laid out with great taste; that of Mount Lewis is the most frequented. The small town of Burtscheid is situated in the immediate vicinity; it is peopled by four thousand six hundred inhabitants, who carry on a trade in cloth, needles and other articles. The road that leads to the town, the beautiful valley in which it is built, the warm springs that may be discovered at a distance, from the vapours they exhale, the streams that supply the different manufactories, and the ruins of an old castle, part of which is now converted into an inn, form together a fine landscape in the neighbourhood of Burtscheid.

Düren on the Roer, is not inferior to the last town in the number of its inhabitants; its trade consists principally in cloth, ribbons and soap. A statue of John Nepomucenus, a saint whose memory is held in veneration, has been erected at Düren. The same town appears to be the ancient *Marcodurum*, mentioned in the annals of Tacitus. A number of iron works, and eight paper mills, are situated in the vicinity. Eupen is a town of ten thousand inhabitants, and the most industrious amongst them are the descendants of the French protestants that fled from their country after the revocation of the edict of Nantes. Cloth is the most important of its manufactures; the others are leather, soap and paper. Malmedy carries on a lucrative trade in leather; its population amounts to four thousand individuals.

Neuwied, a small town not much more populous, but much more industrious than the preceding, stands on the opposite bank of the Rhine. Household furniture, hard-

ware and different articles of cutlery, amounting in weight to about fifteen hundred tons, are exported from it every year. The castle belonging to the prince of Neuwied, contains a collection of antiquities, which are by so much the more interesting from the circumstance that all of them were found on the site of a Roman camp in the vicinity.^b The village of Weisselthurm is situated in the neighbourhood of the same town. It is there that a monument was erected to the memory of General Hoche, whose ashes are deposited on the left bank of the Rhine, not far from Andernach, and near the grave of Marceau. Ehrenbreitstein or Thal-Ehrenbreitstein, is a small and well built town of two thousand inhabitants, situated on the right bank of the Rhine, opposite Coblenz; at no great distance from it are the ruins of a Roman bridge, and the rock on which the important fortress stood, that the French took and destroyed in the year 1799. The same fortress, now in ruins, was defended by a very large piece of ordnance, which has been since removed to the arsenal of Metz.

A flying bridge, constructed across the Rhine, and which moves every quarter of an hour, leads from Ehrenbreitstein to Coblenz. That capital of the province is situated on the river, at the junction of the Moselle; it is encompassed with extensive fortifications, to which additions have been made by the Prussians since 1814. It contains fourteen thousand inhabitants; the streets are straight and regular; none of its edifices have been so much admired as the palace, which was built in 1779 by the elector of Treves, who made it his residence. Of its sixteen churches, fourteen belong to the Catholics, one to the Lutherans of the Augsburg confession, and another to the Calvinists.^c A synagogue has been built by the Jews. The principal institutions are a college, a seminary, and a mount of piety. It possesses a large theatre, its quays are well constructed, and the stone bridge over the Moselle may be considered one of its finest buildings. Coblenz is the ancient *Confluentes*, of which mention is made in the itinerary of Antonine, and by Ammianus Marcellinus.^d The same place under the western emperors was the residence of a military engineer, who took the title of *Præfectus militum defensorum*.^e Its commerce consists chiefly in Moselle wine, grain, wood and coal. The neighbouring country is well wooded, and abounds in romantic scenery. Teinstein, at a short distance from Coblenz, has been much frequented for its mineral waters.

About twelve miles to the north-west, is situated the small town of Andernach, the *Antunnacum* of the ancients. It contains several remarkable ruins, such as the gate of Coblenz, and the bath of the Jews, which are of Roman construction, and the palace of the kings of Austrasia. In its church are deposited the remains of the emperor Valentian. The town stands on a volcanic hill about six hundred and sixty feet above the level of the Rhine, and near the mouth of the Nette. It carries on a considerable trade in the different volcanic products with which the whole adjacent country is covered; its tufa is much used by the Dutch in constructing their dykes and embankments, and its lava millstones are not uncommon in many parts of the continent. The immense rafts of timber obtained from the German forests, and destined principally for the different ports in the Low Countries, collect in the neighbourhood of Andernach.

^a As there is now no emperor of Germany, and of course no coronation, the tense of the above passage has been changed from the present to the past.—P.

^b See M. Hoffmann's work: *Grundriss des Römischen Castel bey Neuwied, nebst andern Denkmälern*, in 8vo. 1803.

^c "It contains sixteen places of public worship, fourteen of which belong to the Catholics, one in common to the Lutherans and Calvinists, and one to the Jews."

^d Lib. XVIII. c. 2.

^e Notit. Imp. Occident.

The lake of Laache is situated at about three miles distance to the south-east of the last town. It is about thirteen hundred acres in superficies, and nearly two hundred feet at its greatest depth.^a From the lava that surrounds it, and its oval form, it appears to occupy the site of an ancient crater. It is fed by forty springs, and it has never been known to freeze during the severest winters. Pike of a very large size, and several other kinds of fish, are taken in it.

No town of any consequence can be observed in the country between Treves and Coblenz; those on the banks of the Moselle are small and insignificant; there are two, however, on the left bank of the Rhine, which ought to be mentioned. The first is Boppard, peopled by three thousand inhabitants, and containing three churches, a college, cotton and linen manufactories and several tan yards. Antiquaries believe that it stands on the site of *Baudobrica*, one of the five citadels built by Drusus, in which was stationed a prefect of the balistarii, (*Prefectus militum balistariorum*.) The other town is Kreuznach; it is peopled by six thousand eight hundred inhabitants, and carries on a considerable trade in sugar made from beets. Two salt works are situated in its vicinity, from which nearly 500,000 pounds of salt are annually obtained.

Treves, which is called Trier in Germany, is surrounded with a great many monuments and ruins, that attest the importance and splendour of the town when it bore the name of *Augusta Trevirorum*. Augustus conferred on it the title of capital of first Belgic Gaul, and Ammianus Marcellinus, wishing to give an idea of its extent, population and edifices, calls it the second Rome. It was ruined at different times by the Huns, the Goths, the Vandals and the Franks, and was as often rebuilt. But it has lost the rank which it held in ancient Germany; its population at present is not greater than fifteen thousand souls. It is situated on the banks of the Moselle, in the middle of a fruitful valley, and there are many fine walks in the neighbourhood. The streets are broad and straight, and some of the public buildings are imposing. It carries on a trade in different kinds of linen and woollen stuffs, leather and beet sugar. Its university, founded in 1455, retained its reputation for a long time. The antiquities which it contains, have tended to promote the study of archæology. The museum is very valuable, and the library not less so, particularly in manuscripts and editions of the fifteenth century; the number of volumes amounts to seventy thousand.

According to a popular tradition, which originated in a monkish history of the twelfth century, Treves was founded by Trebeta, the son of Ninus, thirteen hundred years before the foundation of Rome. Other fables equally ridiculous are related concerning its antiquity.^b It is not improbable, however, that the Treveri possessed a city of some importance long before the Christian era, or in other words, a great number of scattered cottages, which no more resembled a city than the habitations of some savage hordes in North America. Tacitus,^c Ausonius^d and Dion Cassius^e make frequent mention of Treves. One of the most ancient Roman monuments is the bridge over the Moselle, a bridge that has of late years been the subject of a memoir by M. Wittenbach, in which he supposes it was

built by Vipsanius Agrippa, twenty-eight years before the Christian era. It appears to have been the same bridge that is described by Tacitus.^f The gate of Mars (*Porta Martis*), or the Black Gate, is another building more important, though less ancient than the last, for the same learned antiquary believes it to have been erected in the time of Constantine the Great. Two arcades on the ground floor, two stories adorned with columns and arched windows, two square turrets, forming a third story in the same style, render this monument, which by no means resembles a triumphal arch, less remarkable for its architecture than its state of preservation. All the different objects of antiquity that have been found in the town, are collected in this vast building. One of the gates of the baths (*thermæ*), which does not appear to have been erected earlier than the third century, serves as an entrance into Treves. It is likely too that the square tower which rises within the city, does not belong to a more remote epoch; it is a fort or *propugnaculum*. Lastly, the edifice, which has been supposed the palace of Constantine, and which was more probably attached to the baths, for the imperial palace was situated near the bridge, is in a very entire state; it has for a long time been used as barracks.

Many of the churches in Treves are large and well built; some of them may serve to recal the wealth of the convents to which they were attached. The cathedral is generally believed to be the most ancient, but it has rather the appearance of a fortress than a church. The eye is fatigued with the great profusion of ornaments and statues. The church of our Lady^g is remarkable for the lightness of its Gothic architecture, and those of Saint Paulinus and Saint Maximin, although of modern date, are adorned with fine paintings.

It is not only within the town of Treves that many ruins and antiquities give us some notion of Roman splendour; the site of an amphitheatre may be seen beyond its walls; among the vines, which now grow on a soil that has been trodden by gladiators, are the remains of the vaults where wild animals were kept before the combats. It was in the same place that Constantine, who was long revered as a saint, ordered several thousand Frank or French prisoners, with their chiefs Askarich and Ragoys,^h to be torn by wild beasts.ⁱ To gratify the emperor, other spectacles of the same sort were renewed at different times, and he gave them the name of *ludi Francici* or the French games.^k

The remains of a Roman way between Treves and Rheims are observed at some distance from the road which leads to Luxemburg. But one of the most curious monuments which the Romans have left in all the country of the Gauls, is situated at the village of Igel in the same direction and on the same road. Antiquaries have examined it in vain, and the purpose for which it was erected, is still doubtful. It is a sort of quadrangular tower, terminated in the form of a pyramid, and surmounted by a terrestrial globe, on which an eagle rests. Ausonius says, that like the pharos of Memphis, it rises above every other building. If it be the tower of Igel that he alludes to, some allowance must be made for poetical license. Its height, it is certain, is less than seventy feet, and its breadth is not greater than fifteen. It is stated in a letter, published in 1824, and

^a "It is 1300 arpents in superficial extent, and 200 feet in depth."

^b "Attempts to trace its etymology have led to other absurdities."

^c Hist. lib. IV. V. &c.

^d Mosell. V. 10.

VOL. II.—NOS. 115 & 116.

^e Lib. XVI.

^f Lib. IV.

^g "Notre-Dame"—Germ. *Liebfrauenkirche*.

^h Ascaric and Ragoise. *Moreri*.

ⁱ A. D. 306.

^k Wittenbach, Abriss der Trierischen Geschichte.

addressed to Vauquelin, the celebrated chemist,^a that the monument is crowned by a genius with extended wings, kneeling on a globe. The author of the letter is either mistaken, or if his statement be correct, it proves the ignorance of the German architect, who was appointed by government to repair the tower. We examined it carefully before it was repaired, and could easily distinguish an eagle in the same position as on several imperial medals. It is well known that the head of the eagle was destroyed by a canon ball in 1675, during the engagement in which Marshal Crequi was defeated on the plain of Treves. As to the purpose for which it was erected, it appears to us to have been a monument raised to the memory of the dead. Most antiquaries are agreed on this point; but a learned German, from the consideration of a bas-relief on the principal front, representing a man offering his hand to a woman in marriage, has recently adopted an opinion, formerly maintained and refuted, that it was intended to record either the birth of Caligula, or the marriage of Constantius Chlorus with the empress Helena.^b The dances and games of the little genii with which the tower is decorated, as well as a figure of the shepherd Paris, on the eastern side, and the attributes of commerce which may be there distinguished, have been considered by others as not incompatible with the design of a funeral monument. A mutilated inscription, which has been explained and restored by antiquaries, leads us to conclude that the tower was built by two members of the *Secundini* family, in memory of Secundinus Securus, a wealthy merchant, and the founder of Igel, during the latter part of the fourth century.^c

No large towns are situated between Treves and the southern extremity of the province. Sarrebourg or Saarburg, is a small town of two thousand inhabitants, with a bridge over the Sarre; the streets are dirty and ill built. The picturesque course of the Sarre is confined by steep and rugged rocks. The village of Mettlach is situated at some distance above the last place, on the banks of the same river. In its vicinity are the remains of a fine abbey that belonged to the Benedictines. Sarrelouis^d was built in 1680, and fortified by Vauban; one of its squares is large, and most of the streets are well arranged.^e Before the last treaties, this town formed part of the district^f of Thionville, and it contained four thousand three hundred inhabitants. Hassel, whose ordinary accuracy on such subjects cannot be disputed, estimated its population in 1819, at six thousand nine hundred and seventy-two individuals. But however much it may have flourished under the Prussian government, it is difficult to suppose that the population could have almost doubled within the course of a few years, and that a town, of which the length from one gate to another, is not more than five or six hundred paces, and which is besides, so much confined by fortifications, could hold so many inhabitants. The important iron works at Dilling are situated in the vicinity. Sarrebruck, or Saarbrück, which in point of the space that it occupies, is larger than Sarrelouis, does not, according to Hassel, contain so

great a number of inhabitants; for it appears from his statistical tables, that the population does not exceed six thousand four hundred persons. The streets are broad and regular, and its public buildings, of which the most remarkable are a Protestant church, a gymnasium and a theatre, are modern and of good architecture. It is united by a fine bridge to the town of St. John, which has now become its suburb. Mount Halberg in the neighbourhood, was probably the site of a Roman town, that is mentioned in the Itinerary of Antonine, by the name of *Pons Saravi*. There are a few ruins still left, to which the peasants have given the name of the old heathen chapel (*die alte heiden-capelle*.) Sarrebruck carries on a trade in iron, instruments of agriculture, and in coal from the neighbouring country.

A small hill at a short distance from Solsbach emits flames and smoke. As it contains a coal mine, its combustion, which may be attributed to the decomposition of sulphuret of iron, is not very extraordinary; at least other examples of the same kind might be mentioned. Those who visit it, remark that many of the schistous blocks, of which the hill is composed, are so hot that they cannot keep their hands on them for any length of time. The same rock is in several places calcined, and the shrubs that grow on them, are stunted, and of a yellow foliage. How widely different are such phenomena from those that volcanic mountains exhibit!

Although all the towns in the province of the Lower Rhine have been mentioned, it is necessary to notice the circle of Wetzlar, a dependence on that province, from which, however, it is more than fifteen miles^g distant. Its territory, surrounded by the states belonging to the princes of Nassau and Hesse-Darmstadt, is nearly a hundred and eighty English square miles^h in superficial extent.

Wetzlar, situated at the confluence of the Dille and the Wetzbach with the Lahn, contains four thousand seven hundred inhabitants; its trade consists chiefly in leather. Braunfels, another town in the same circle, which is attached to the government of Coblenz, possesses a strong castle, and a population of not more than thirteen hundred persons. The country in which both these places are situated, is so rugged and mountainous, that the use of every sort of carriage is rendered impracticable. If the country in the neighbourhood of Wetzlar be ill calculated to awaken the attention of the historian or geographer, it may gratify the readers of Werter, who may there visit the tomb of the unfortunate lover, and the different places and sites connected with that story.

The burghs of Wandersleben and Muhlberg are situated in a small territory of about fifteen square miles,ⁱ surrounded by the dutchy of Saxe-Gotha, and dependent on the government of Erfurt. Another territory attached to the same government, and somewhat larger than the last, for its surface is about forty-two square miles,^k lies in the midst of the principalities of Saxe-Weimar, Schwarzburg and Reuss. The burgh of Rhanis, the most important place in the district, may contain about seven hundred inhabitants. Lastly,

^a Lettre sur quelques antiquités peu connues en France, à M. Vauquelin, membre de l'institut; par M. Raymond, ancien professeur de l'université.

^b Account of the monuments at Igel by Neurohr, a German work.

^c The following is the inscription, as it has been explained and restored by M. M. Neller and Clotten in 1778, and quoted by M. Wittenbach in his History of Treves.

D. T. Secundino Securo, qui locum Aegla vocatum fundavit primus, cum Secundino Aventino ac filis Secundini Securi et Publica Pacata conjugis Secundini Aventini, et Lucio Saccio Modesto et Modestio Macedoni

filio ejus judici, Secundinius Aventinius et Secundinius Securus parentibus defunctis et defuncturis, sibi vivi, via hujus reintegratores posuerunt.

^d Saar-Louis.

^e "It has a fine square, and straight and regular streets."—The town is entered by two gates directly opposite; the streets are exactly straight; in the centre is a great square, on one side of which is the church, and on the other the government house. Encyc. Method.—P.

^f "Arrondissement."

^g "5 leagues."

^h "About 30 sq. leagues." ⁱ "2½ sq. leagues."

^k "7 sq. leagues."

the town of Suhl^a and the territory belonging to it, are also attached to the government of Erfurt. The town contains a population of five thousand five hundred individuals, many of whom are employed in manufacturing arms. The lands included in its territory, which forms a part of the mountainous country, called the forest of Thuringia (*Thuringer-Wald*), are not less than a hundred and fifty square miles^b in extent; they are surrounded by the four principalities of Ducal Saxony, and also by those of Schwarzburg and Hesse-Cassel.

But Neuchatel^c in Switzerland, a Prussian principality, is more remote than any other from Prussia Proper and the Prussian possessions on the Rhine.

That principality, which the Germans call Neuenburg, is bounded on the north by the canton of Bern, on the east by the same canton and the lake of Neuchatel, on the south by the canton of Vaud, and on the west by France. Its greatest extent from north-east to south-west is about twenty-nine miles, and between twelve and fifteen from east to west,^d its surface, as has been already remarked, is equal to two hundred and thirty-four square miles,^e and the population to fifty-one thousand five hundred inhabitants. Some account shall be now given of its soil and climate.

That part of the chain of Jura in which it is situated, abounds in mineral springs, both sulphureous and ferruginous, and in different calcareous and silicious rocks, inclosing organic remains of the animal and vegetable kingdoms. The mountains in the canton of Neuchatel are not so lofty as in the neighbourhood of the lake of Geneva. Six or seven vallies, some of which, such as those of Ruz and Travers, afford rich pasture, make up the greater part of the country. The soil is more fruitful in wine than in corn, and the inhabitants are obliged to purchase from their neighbours about 300,000 florins worth of grain. The sale of their red wines produces a revenue of 180,000 florins, which added to that derived from their fruit, hemp and cattle, furnishes a net profit of 60,000 florins. They derive also a considerable profit from the fishings on the lake, from the copper and iron mines in the high country, and from the Swiss tea and vulnerary herbs that are collected on the mountains.

As to its climate, the canton of Neuchatel may be divided into three distinct regions. The best vines and the best crops of hemp and flax are raised in the lowest and most temperate region, or the one along the banks of the lake. A range of mountains separates it from two lofty vallies, which extend from north-east to south-west; different sorts of grain are sown in them, and they yield excellent pasture. The third or most elevated region is covered with wood, heath and pasture; the inhabitants are exposed to a cold climate, and oats are the only grain that can be produced in it. Spring and autumn are of short duration; winter lasts seven or eight months of the year; the snow rises often to the height of the houses, and almost as soon as it disappears, the severe frosts of winter are succeeded by a scorching summer.

It might be concluded that this region, exposed from its height to the temperature of northern climates, was

inhabited by an ignorant, poor and superstitious people. Few countries however are peopled by more industrious, more enlightened, and it might be added, more wealthy inhabitants.

The arts of engraving, painting and watch-making have been cultivated in these mountains with great success. Almost all the population in Locle, one of the highest towns, are employed in working gold, silver and steel for watches and different articles of cutlery. The art of the watch-maker appears to have been unknown there before the year 1680. John Richard, a mountaineer, when about fifteen years of age, saw a watch for the first time; he examined it, tried to make another like it, and succeeded after repeated efforts. Thus, an humble peasant, by his example and persevering genius, was the means of introducing a source of wealth into his village, that has since been extended over all the vallies of Jura. Chaux de Fond, formerly a small village, now an important town, carries on a considerable trade in lace, watches, musical boxes, and different articles; its elevation is still higher than that of Locle. It was the birth-place of the Drozes,^f who were celebrated for their automaton and other curious pieces of mechanism. The same kind of industry, and the same activity, are observable at Couvet, Travers, and several other places.

It is difficult to assign any limits to the inventive genius of man; some notion may be formed of what it can achieve by visiting these mountains. Peasants wishing to improve their condition, and increase their enjoyments, sought and found in the depths of the earth, an immense addition to the productive power of their hands. The inhabitants on the chain of Jura had long remarked that the water produced by rain and melted snow, enters crevices even on the highest summits, by which it descends in subterranean channels to the base of the mountains, and forms springs or rivulets. The subterranean channels were traced to a very considerable depth; ingenious works were constructed to prevent the earth from filling up the cavities, the channels were enlarged at a great expense, and in short, mills and machinery were erected by which their labour was facilitated and abridged. Thus, an advantage was derived, that could not have been obtained from the springs that escape occasionally from the mountains into the elevated vallies. In a territory where the inhabitants are as industrious as in the canton of Neuchatel, it need not excite surprise, that there are five thousand six hundred persons employed in weaving lace, three thousand three hundred workmen in making watches, a great number in engraving, and more than seven hundred in printing the different cotton goods of the country.^g The quantity of these goods has been estimated at sixty thousand pieces, and the number of watches at a hundred and thirty thousand; the latter are exported into Germany, Italy, Spain, Turkey and even America.

The ancient inhabitants of the country, that now forms the principality of Neuchatel, were those *Helvetii* who are mentioned by Cæsar in the first book of his Commentaries. It may be as well to defer what we have to say concerning them until we treat of Switzerland.

The commercial town of Neuchatel, which in the earliest

^a Suhl.

^b "25 sq. leagues."

^c Neuchatel.

^d "8 to 9 by 4 to 5 leagues" Fr.—11 to 12 leagues long and 5 or 6 broad. Ed. Encyc.; 11 leagues long and 5 broad (Fr.) Vosgien.—P.

^e See note (^d) p. 648.

^f P. J. Droz, born 1721, died 1790, inventor of musical watches, a self-moving pendulum, a writing automaton, &c. H. L. J. Droz, his son, born

1752, died 1791, constructed an automaton draughtsman, and another that played several tunes on the piano, besides numerous other works of singular ingenuity. These are the mechanicians referred to in the text, but there was a third, J. P. Droz, a native of Chaux de Fond, distinguished for his improvements in coining, and for some time associated with Boulton and Watt at Birmingham. Born 1746, died at Paris 1822.—P.

^g 734 cotton printers in 1814. (Hassel.)

documents bears the name of *Novum Castrum*, appears to have been originally a fortress that the Romans erected to defend themselves against the attacks of the Helvetic nation. It is built in a circular form on the banks of the lake of the same name, and at the mouth of the Seyon, a small river that traverses the town, and discharges itself into the lake. The number of inhabitants amounts to five thousand. It is adorned by four principal streets and a large castle. The gymnasium, several public schools, the townhouse, the orphan and two other hospitals, as well as an agricultural and economical society, have been founded by two respectable and wealthy merchants, natives of the town.^a Neuchatel has experienced several great calamities, and it might have been completely ruined, had it not been for the industry and patriotism of its citizens. It was taken and sacked by the emperor Conrad the Second, in the year 1033; it was burned by Henry, bishop of Bale and count of Neuchatel, in 1249; it was almost wholly consumed by a conflagration in 1450; a great part of it was ravaged by an inundation of the Seyon in 1579, and, lastly, the whole street that communicates with the castle was destroyed by a fire in 1714. In order to provide in some measure against the chances of fire, insurance companies were established in the year 1811.

The lake that washes the walls of Neuchatel adds so much to the beauty of the neighbouring country, that it may be right to describe it. It is not much less than twenty-four miles at its greatest length, and about six at its greatest breadth.^b The level of its waters has been found to be nearly a hundred and sixty-four feet above the lake of Geneva, and about one thousand and sixty-three above the Mediterranean.^c Saussure measured its depth at a mile and a half to the south of the town, and found it to be three hundred and twenty-five feet. The surface of the lake must have been at one time much larger than at present; that fact may be proved by the marshes on the south of the lake, near the river Orbe, by a tradition which many believe, that Yverdon stood formerly on the banks of the lake, although it is now several hundred yards removed from it, and by the sand still found at some distance from its banks, which is in every respect the same as the sand in the lake. The diminution of surface may be attributed to the alluvial deposits carried down to the mouths of the rivers and streams by which the lake is fed. It is easy to discover among the pebbles and sand that rise like downs along the banks, the same sort of shells as those that still exist in the lake.

We have already taken notice of Locle and Chaux-de-Fond on account of the industry of their inhabitants; the former town contains five thousand nine hundred individuals, and the latter four thousand three hundred. Vallengin, situated on the Seyon, and surrounded by a romantic valley, was formerly the chief town of a county. In a territory so mountainous and confined, it is not in the number of cities that we must look for the indication of its wealth. Three towns, as many burghs, sixty-seven villages and forty-five hamlets are peopled in the proportion of one thousand three hundred and forty-six persons for every square league,^d or upwards of two hundred and twenty-four for every English square mile, and as there are comparatively very few mendicants or paupers, a better proof of the prosperity of the

country cannot be adduced. Erfurt is the only government in the Prussian dominions that can be compared to Neuchatel in point of population.

To what causes can the wealth and activity that prevail in this canton, be attributed? Is it to that turn of mind, which leads the inhabitants to examine and discuss every subject connected with their rights, and which made them adopt by a plurality of voices, the reformation preached to them by Farel?^e It may be remarked that Landeron and Cressien, are the only Catholic districts in the country. Can it result from the civil and religious liberty they enjoy, or from the circumstance of the canton not having been invaded by any hostile force for several centuries, or lastly, from the inhabitants being exempt from every onerous tax, impost and contribution? It cannot be denied that so many and so great advantages have contributed to produce that emulation, and that love of labour, which are the best security against the corruption of the people, that desire of freedom, by which the diffusion of knowledge is promoted, and that spirit of union by which those engaged in the same pursuits are bound together.

The sudden conversion of the inhabitants was in a great measure owing to Farel being a Frenchman, for the French is the only language generally understood in the country.

The canton of Neuchatel, although it forms a part of the Swiss confederation, acknowledges as its sovereign the king of Prussia, whose influence it must be admitted, is very considerable. When Mary of Orleans, wife to Henry of Savoy, duke of Nemours, and sister to the last heir of the house of Longueville, the reigning family in the principality, died without issue in 1707, many claimants to the title of prince of Neuchatel, repaired or sent their representatives to the sovereign court of the country. Frederick the First of Prussia was elected as the nearest heir of the house of Chalons, of which the ancient counts of Neuchatel were vassals. But not an article in consequence of his election, was changed in the treaty of Westphalia, by which the independence of the different states that composed the Helvetic confederation was secured. Neuchatel enjoyed its privileges, and retained them until it was bestowed on a French Marshal^f by the imperial government in 1807, and it continued to preserve them after it was restored to Prussia by the congress of Vienna. The king of Prussia receives only the revenue of some domains, and a very moderate land-tax, that cannot be augmented. The inhabitants, who choose the military profession, may enter into the service of any state, provided it be not at war with the king of Prussia as prince of Neuchatel; it is certain that there are comparatively very few of the people in the Prussian army. No customs are levied, no duties are imposed on any goods that enter or leave the territory. Every profession and every trade are free; so vigilant have the inhabitants been in defending their rights, that justice is not administered in the name of the prince, and neither he nor his deputy, who represents him, can prosecute criminals, although in certain cases the prince may save the life of a condemned person, or commute his punishment.

We have now completed the account of the provinces, which, on both banks of the Rhine, and in the mountain-

^a M. M. David Pury of Lisbon, and J. L. de Pourtalès.

^b "Greatest length 8 leagues, breadth 2"—9 leagues long, and 2 broad opposite Neuchatel. Ed. Encyc. 20 miles long and 4 broad. *Morse*.

^c "50 and 430 metres"—164 and 1412 feet nearly. Height above the

lake of Geneva, 186 feet—above the level of the sea (Saussure) 1320 feet. Ed. Encyc.

^d Fr. measure.

^e Musée des Protestans célèbres, tom. II. 1ere partie. (Notice sur Farel.)

^f Marshal Berthier Prince of Neuchatel and Wagram.

ous countries where the Doubs takes its source, are governed by the descendants of Frederick the Great. When that prince made himself master of Silesia, when availing himself of the troubles that agitated Poland, he enlarged his dominions at the expense of that unjustly dismembered state, what would he have said, had it been announced to him that thirty years afterwards, his successor was to experience all the calamities of war, and be stripped of a great portion of his dominions by an ambitious conqueror, and that at a later period his kingdom was not only to be reinstated in its ancient limits, but new countries were to be added, by the generosity of the kings, his allies? The mind of Frederick might have been elated at the prospect of the future greatness of his country. But it is necessary to take a general view of the kingdom, and to consider its resources. From the banks of the Niemen to those of the Elbe, and from the sources of the Oder to the shores of the Baltic, it occupies an extensive territory,—the centre of its power,—the kingdom of Prussia proper. But if to the conquests made by Frederick the Second, some portions detached from Poland, and the provinces taken from Saxony by the last treaties, be added, does it follow that the power of Prussia has been much increased? Many reasons might induce us to think otherwise. It cannot be denied that the preponderance of Prussia over the Germanic confederation is now greater than it ever was at any former period. But Russia, her most formidable neighbour, has been increased in the same manner; she may either therefore be in some sort dependent on that colossal empire, or unite her destinies with those of Austria, and have to dread the armed hordes that may inundate the west from the countries in the north. The possessions of Prussia on the Rhine, however important they may be in point of commercial wealth, do not augment its power in proportion to their population. It must be long before the people in those countries can forget that they are not Prussians. Some of them have suffered too much in their commerce, by their separation from France, not to regret the change.

If the tranquillity of Europe should be again disturbed

by any political commotion, if France in particular should take an active part in the struggle that might ensue, Prussia, obliged to divide its forces in order to keep in obedience the remote and scattered countries within its dominions, and no longer able to calculate on the heroic energy its inhabitants displayed in the wars against Napoleon, because it had refused those institutions and improvements, suited to the spirit of the age, which it had promised and which had been claimed by the enlightened part of the population,—Prussia might then exhibit the spectacle of a body weakened by a too rapid growth, and be unable to maintain herself in the menacing attitude, that might be expected from the extent of her territory. It has been already seen that the canton of Neuchatel is politically of no use to the Prussian monarchy, neither can the influence which it possesses in that part of Switzerland, be considered of any advantage, or at all events, if any can accrue, it can be only to its commerce. But if we reflect that all the provinces subject to Prussia, extending from east to west from the banks of the Niemen to those of the Sarre, are not much less than eight hundred miles in length, and only three hundred and twenty-five at their greatest breadth from south to north, while at their mean breadth, they are not more than a hundred;^a if besides it be considered that several foreign princes, such as the duke of Brunswick, the prince of Anhalt-Dessau, the grand duke of Saxe-Weimar, the prince of Schwarzburg, and the prince of Lippe, possess more or less extensive territories surrounded by Prussian states; that some parts of the same monarchy, as the territories of Rahnis, Suhl and Wetzlar, are situated in the midst of other foreign possessions; it may be concluded that a country elongated out of all proportion, and so irregularly intersected, that remote and scattered lands so unequally arranged in relation to the influence which ought to emanate from the capital to the other parts of the kingdom, and lastly that a surface so considerable as that of Prussia, which is equal to more than eighty-two thousand eight hundred square miles,^b are rather to be considered the elements of weakness than of power.

^a "Length nearly 300 leagues, greatest breadth 130 leagues, mean breadth 40."

^b "More than 13,800 sq. leagues."

BOOK CXXI.

EUROPE.

Europe continued—Germany—Fifth Section—Kingdom and Dutchies of Saxony ; Electorate of Hesse ; Grand Dutchies of Hesse-Homburg and Hesse-Darmstadt ; Principalities of Lippe-Deimold, Lippe-Schauenburg, Schwarzburg-Sondershausen, Schwarzburg-Rudolstadt and Reuss ; Dutchies of Anhalt-Dessau, Anhalt-Bernburg, Anhalt-Kæthen and Brunswick ; Principalities of Waldeck and Nassau.

THE country that we are about to enter, forms part of central Germany. It might be difficult to describe it uniformly, from its many political divisions ; in order, therefore, to avoid the confusion that might arise, if we attempted to give an account of the different contiguous principalities, it may be better to arrange the twenty-one small states that form the country, into divisions comprising the territories of the different princes that are related to each other by consanguinity or family connexions.

We shall proceed then in the following order ;—the kingdom and the dutchies of Saxony ; Electoral Hesse, Hesse-Homburg and Hesse-Darmstadt ; the principalities of Lippe-Deimold and Lippe-Schauenburg ; those of Schwarzburg-Sondershausen, and Schwarzburg-Rudolstadt ; the principalities of Reuss ; the dutchies of Anhalt-Dessau, Anhalt-Bernburg and Anhalt-Kæthen ; lastly, the dutchy of Brunswick, and the principalities of Waldeck and Nassau.

As the limits of the countries possessed by the early inhabitants, cannot be made to correspond with the limits of the dutchies and principalities, into which this portion of central Germany has been divided, it is proper at first to make some remarks on its ancient population. They formed seven principal tribes, the *Cherusci*, the *Chassuarii*, the *Chatti*, the *Sedusii*, the *Sorabi*, the *Suevi* and the *Venedi*.

The two banks of the Weser, within the confines of the territory that now forms the principality of Lippe-Deimold, together with some dependencies on the electorate of Hesse-Cassel, were in ancient times inhabited by the *Cherusci* and *Chassuarii*. No people in ancient Germany, says M. Wilhelm,^a maintained their independence with more courage, and acquired greater renown in the wars against Rome, than the *Cherusci*. It was the same people that contributed most to the defeat of Varus, but upon them, as Strabo informs us,^b the signal vengeance of Germanicus fell. They were defeated by him, and among the persons that followed in his triumphal entry, were Semiguntus,^c a chief of the *Cherusci*, and Thusnelda, his sister, the wife

of Hermann or Arminius their general, who had cut in pieces the three Roman legions.

The *Chassuarii* or *Chasuari*,^d as Tacitus calls them, or the *Attuarii*, according to Ammianus Marcellinus,^e were a wandering and warlike people, that often ravaged the frontiers of the Gauls, before they were subdued by Julian.

It appears from what Tacitus^f says of the *Chatti* or *Catti* that they inhabited the country between the banks of the Ohm, a feeder of the Fulda, and those of the Upper Elbe, in other words, Electoral Hesse, the dutchy of Saxe-Weimar, and a part of the kingdom of Saxony. According to Pliny,^g the nation of the *Hermiones* was made up of the *Chatti*, the *Cherusci*, the *Suevi* and the *Hermunduri*. It may be worth while to mention the account given of them by Tacitus.

The *Catti* were distinguished from the other Germans by their strong and muscular limbs, their warlike appearance, their courage and intelligence. Educated to war, judicious in the choice of their chiefs, zealous in obeying them, making it a point of honour to maintain their ranks, skilled in avoiding the snares of their enemies, and ready to avail themselves of favourable opportunities, they defied the inconstancy of fortune and confided in their courage. Their whole strength consisted in their infantry. The other Germans, says the historian, knew how to fight, the *Catti* knew how to make war. As soon as they arrived at the age of manhood, every man allowed his hair and beard to grow until he had slain an enemy on the field of battle. The bravest amongst them wore an iron ring, a badge of ignominy and slavery, which was not taken off before they had vanquished a foe. Careless of wealth, prodigal of what belonged to others, their time was not spent in cultivating the land, building houses, or enclosing fields.

The *Sedusii* inhabited the country between the Rhine and the Maine, that now forms part of the grand dutchy of Hesse-Darmstadt ; they joined the coalition, which, under the command of Ariovistus, resisted the arms of Cæsar. The *Sorabi* possessed part of Saxony ; the *Suevi* extended from the banks of the Elbe to those of the Oder ; they occupied therefore more than a third of the kingdom of Saxony, but it is difficult to determine the limits of their territory, both because they were a wandering people, and because the ancients designated by the name of *Suevi* different nations of a common origin. Tacitus says they were distinguished by their hair being bound and knotted on the crown of their head.^h Strabo informs us that their territory extended from the Rhine to the country beyond the

^a Germanien und seine Bewohner nach den Quellen dargestellt, p. 190.

^b Lib. VII. cap. ii. sect. 4.

^c Segimundus, son of Segestes, Tac. Annal. lib. I.—Siegmond (Germ.)

^d *Chassuarii*, *Chattuarii*, *Cattuarii* (Strab. Ptol.) *Attuarii* (Vell. Paterc.)

^e Lib. XX. cap. 10.

^f De Moribus Germanorum, sect. 30, 31.

^g Lib. IV. cap. xiv.

^h Tacitus, de Moribus Germanorum, sect. 38.

Elbe;^a Ptolemy places the *Longobardi*, the *Suevi*, the *Angli* and the *Semnonnes* in the same region. When the intercourse between the Romans and the Suevi became more frequent, it was found that they were not so numerous as had been supposed, for those who were formerly confounded under that general denomination were better known, and made themselves at last formidable to the Roman power.^b The Suevi extended their territory to the Rhine in the fifth century; and the lands in Saxony, on the right bank of the Elbe, were about the same time occupied by the Venedi or Wends.

It was the descendants of the Catti and Suevi who, under the name of Saxons, acquired in the middle ages so much reputation in war. They resisted during several centuries the kings of France, who during the reign of Clovis, and a long time afterwards, were the most powerful princes in Europe. Hengist, a Saxon king that flourished in the fifth century, having collected some hordes from the banks of the Weser, sailed to England, and took possession of the island. The Saxons invaded Spain in the year 409, under the command of their prince Hermeric. Having made themselves masters of a part of Belgium, in the sixth century, they carried on a long and tedious war against Thierry, Clotaire I, and Clotaire II, and continued in possession of that country. Charles Martel made war against them during twenty years, Pepin during ten, and Charlemagne was unable to subdue them until after a struggle that lasted thirty-two years.

Part of the country that belonged to the same people, forms at present the kingdom of Saxony, formerly a dutchy and electorate, now raised into a kingdom, which was founded about twenty years ago^c by Napoleon. Its territory was greatly diminished in consequence of the resolutions passed at the congress of Vienna in 1815. The surface of the kingdom is little more than five thousand six hundred and forty square miles.^d It is bounded on the north and the east by Prussia, on the south by Bohemia and Bavaria, and on the west by Prussia and the dutchies of Saxony. Its greatest length from east to west is about one hundred and twenty-five miles, and its greatest breadth from north to south nearly eighty.^e

The southern part of the kingdom is formed by the branches and declivities of the mountainous chain, called the *Erz-Gebirge* or *Hartz-Wald*, which extends eastwards to another range, called the *Riesen-Gebirge*. A line drawn at a short distance below the summit of the *Erz-Gebirge*, may be considered the natural limits of Saxony, contiguous to those of Bohemia. It is hardly necessary to take notice of the analogy that subsists between the name of *Hartz-Wald* or *Erz-Gebirge*, and the country of the *Hartz* that has been already mentioned. The region thus designated may be considered as having formed a considerable portion of the vast *Hercynian forest* that was so celebrated in ancient times. The chain of the *Erz-Gebirge* is no-

where very lofty; the *Schneekopf* or *Snow-head*, the most elevated summit, is not higher than three thousand five hundred feet above the level of the sea; the others are the *Auersberg*, which is about three thousand two hundred and fifty, the *Lausche*, about two thousand six hundred, the *Drechsler*, about two thousand five hundred and twenty, the *Hochwald*, about two thousand four hundred and seventy, and the *Guthhaus*, which rises to the height of two thousand three hundred and forty feet.^f

These mountains are in general composed of granite, and the greater number of them are covered with gneiss. M. Leonhard^g observes that the western declivities are for the most part steeper than the eastern, and he informs us that towards the south-west, as well as in the opposite direction, or in the neighbourhood of *Freyberg*, they appear to rest on an immense base of granite. But at their eastern extremity, the granite is covered with rocks of a more recent formation, such as compact limestone, and strata of sandstone or *psammite*.^h In other parts of the chain, the granite rests on talc mixed with strata of schistus with which it is in some places covered, and which in others serve as a support for the gneiss. Thus the granite in the *Erz-Gebirge*, as well as in many other chains, appears to belong to different epochs. In the centre of the chain, micaceous schistus occupies a large space towards the western extremity; it rises to the summits, and forms the top of the *Schneekopf*. The rock called *pegmatite*, which is composed of quartz and feldspar, forms, according to the observations of M. Bonnard,ⁱ a distinct group. Lastly, hills of sandstone are situated at the eastern extremity. M. Daubuisson observed basalt in the mountains of Saxony, that did not appear to him to be of volcanic origin.^k It would follow, therefore, that the name by which it is known in Saxony, is inapplicable, but that geologist has of late modified his opinion on the object.^l

A porphyritic rock^m that is found below the mountains, contains the combustible substance called anthracite, which may be seen in the neighbourhood of *Lischwitz* and *Frauenstein*. The coal formation occurs in the country between *Schneeberg* and *Planitz*, and in the plains adjoining *Leipsick*, the schistous rocks that descend from the *Erz-Gebirge*, sink below the ground, and are covered with porphyry, that assumes the form of isolated heights, the bases of which are surrounded with the sand and clay of the plains.

The mountains of the *Erz-Gebirge* abound so much in metals of different kinds, that they have been correctly denominated the *Metalliferous mountains*. The working of the mines furnishes employment to a numerous population. The art of the miner is best understood in this part of Germany; indeed it has been there changed into a science by the labours and discoveries of distinguished men. It was at *Freyberg* that a geological chair was founded by the celebrated *Werner*, an individual to whom the science was so much indebted, that before his time it might have been

^a Lib. VII.

^b The Romans at first employed the term *Suevi* as a generic name for several tribes which were afterwards known by their own peculiar designations, and the original name thus restricted to a smaller number.—P.

^c In 1807.

^d Superficial extent, 910 sq. leagues—7115 sq. miles. Ed. Encyc.

^e "Length 50 leagues, breadth 30 leagues."—Length 140 miles, greatest breadth 75. *Morse*.

Metres. Fr. Feet.* Eng. ft.†

^f *Schneekopf* 1075 3313
Auersberg 1100? 2953 2931

* See Table of Altitudes, Book XCIV. † Ed. Encyc. art. Saxony.

	Metres.	Fr. feet.	Eng. ft.
<i>Lausche</i>	800	2407	2400
<i>Drechsler</i>	780		
<i>Hochwald</i>	760		2299
<i>Guthhaus</i>	720		

^g *Charakteristik der Felsarten*.

^h *Psammite* is a new French term for sandstone, from *ψαμμος*, sand.

ⁱ *Essai géognostique sur l'Erz-Gebirge*, 1816.

^k *Journal de Physique*, tom. LVIII.

^l *Traité de géognosie*, tom. II, page 601, &c.

^m *Eurite porphyroïde*.

called a chaos, or at best the art of making systems to which their authors gave the pompous title of theories of the earth.

The climate in the kingdom of Saxony is dry and temperate; it is only the mountainous region that is exposed to severe winters; one may travel in a sledge in the high country a long time after the snow has disappeared on the low grounds. It is stated in the work of M. Engelhardt,^a that wheat, oats and potatoes begin to thrive in the mountainous districts, while asparagus is ripe on the plains.^b The temperature is mildest in the lowest parts of the kingdom, as for example in the neighbourhood of Leipsick. It might be proved that the climate is salubrious, from the fact that the number of deaths is not so great as in neighbouring countries, and from the number of persons who have arrived at an advanced period of life.

The people engaged in agriculture are intelligent, the land is of a good quality, and the produce must necessarily be considerable. The breed of sheep has been greatly improved; numerous flocks are reared, and their wool, which is much prized, forms an important branch of commerce. Several agricultural societies have been established, and by their means the breed of horned cattle and horses, and even the rearing of bees, are encouraged. To improve the culture of vineyards is the principal object of other societies of the same nature. The wine is of good quality, but the quantity is not sufficient for the consumption. The grain harvests are also inadequate, but the deficiency is by many supplied with potatoes, a plant for which the country is well adapted. Esculent vegetables and fruits are abundant, and in some districts, hemp, flax, hops and tobacco yield good harvests.

The mineral productions of the country are much more important than those of its fruitful soil. The gross product, from which it is necessary to deduct the expense of working, has been estimated at £291,666. The mines of Ausbringen are supposed to make up £102,083 of this sum, and those of Freyberg £15,000;^c the other useful metals, worked in the neighbourhood of the same town, are not less abundant. The quantity of fine silver annually obtained from its mines, is estimated at £116,700.^d It has been computed that about nine thousand workmen extract every year, three hundred quintals of copper, eighty thousand of iron, ten thousand of lead, two thousand five hundred of tin, and more than five thousand of arsenic. In the chain of the Erz-Gebirge, numerous workmen collect annually, according to Stein, nearly one million two hundred thousand quintals of sulphur, alum, and nitrate of potash. The same chain abounds in white quartz, amethysts, agates, jaspers, garnets and kaolin, to the fine quality of the last of which must be attributed the superiority that the Saxon porcelain has so long maintained over every other in Europe. Lastly, several extensive coal mines are worked in the Saxon territory, but the most important are those in the neighbourhood of Dresden, from which an annual revenue of £50,000^e is derived.

The Saxon manufacturers are not destitute of activity or zeal; they have made several improvements by which the produce of their industry has been increased. Among the different articles that are manufactured, linen, silk, cotton

and woollen stuffs, lace, ribbons, muslin, straw hats, paper arms, and musical instruments might be specified; its porcelain and earthen ware are considered the finest in Europe. A great number of hands are constantly employed; it was calculated a few years ago that more than eight hundred thousand individuals were occupied in making these different articles. Twenty-five thousand were engaged in manufacturing cloth, five thousand in making straw hats, fifty thousand in working metals, and in cotton spinning alone, nearly four hundred thousand.

The perfection attained in manufacturing different articles, cannot be wholly ascribed to the industry and intelligence natural to the Saxon nation. Government has for more than twenty years used every means to assist the efforts of the people. Premiums and rewards are not only bestowed on the inventors of useful machines, but medals and sums of money are given to the most able workmen.^f Societies have been instituted with a considerable capital at their disposal, and it is employed in accomplishing these ends. These societies offer rewards for the solution of such questions as may tend to make manufacturers and agriculturists more enlightened concerning their own interests. It has even been proposed to attain such an object that some imposts and duties should be abolished.^g

The trade of Saxony is very extensive, and it is not less certain that by the judicious measures of government, a great impulse has been given to commerce. Stein estimates the value of the whole inland trade at 12,000,000 of rix-dollars, or £2,700,000.^h The capital circulated in the three great fairs that are held in Leipsick, is not supposed to be less than 18,000,000 of rix-dollars, or £4,050,000. A considerable revenue was formerly obtained from the salt works, but as the territory in which they are situated, was taken from Saxony by a decision of the congress at Vienna, it has been stipulated that Prussia, which is at present in possession of the country, shall deliver annually 250,000 quintals of salt at a price sufficiently moderate to enable the Saxon government, by this monopoly, and without raising the price, to derive the same revenue that it possessed before the treaty of 1815.

The government of Saxony is monarchical, the king is of full age at eighteen years, and every office, whether it be civil or military, is filled up by the sovereign. But all the nobles in the kingdom are not equally subject to the crown; several lords levy contributions within their domains, a third part of which can only be claimed by government. The states are partly formed by the deputies whom the provinces appoint, but the sovereign only can dissolve and call them together. It generally happens, however, that they assemble every six years at Dresden. The states are composed of three orders: the clergy, nobility and members deputed by towns. They regulate the taxes and imposts, fix the amount of the budget, and deliberate on the laws that the king submits for their decision.

The revenue of Saxony amounts to about 11,000,000 of florins, and the national debt in 1820, was not more than 32,000,000.ⁱ

The army is composed of a regiment of guards, three of infantry, one of cavalry, one of foot artillery, two brigades

^a Handbuch der Erdbeschreibung des Koenigreichs Sachsen.

^b "M. Engelhardt assure même que l'on commence à y voir réussir le blé, l'avoine et les pommes-de-terres, tandis que dans les plaines on récolte déjà les asperges." ?

^c "350,000 francs."

^d "2,800,000 francs."

^e "Nearly 1,100,000 francs."

^f "Medals are awarded to the most skilful manufacturers."

^g "For the attainment of such an object, the government has even gone so far as to diminish some of the taxes."

^h Reckoning the rix-dollar at 4s. 6d. sterling—but the rix-dollar in Saxony is 3s. 2d. sterling. Ed. Encyc.—P.

ⁱ Revenue 1,250,000l. sterling; public debt, 3,700,000l. Ed. Encyc.

of horse artillery, a battalion of the train, a battalion of chasseurs, and two companies of invalids. The total force amounts to 13,300 men, and the contingent of the king to the Germanic confederation, to 12,000. Every man from eighteen to thirty-one years of age may be liable to the military service, but many pleas of exemption are urged and sustained. The towns possess national guards, consisting of all the citizens who can afford to equip themselves; none are exempt from the service before the age of sixty. Patrols of horse police are stationed on the principal roads in the kingdom.

The German spoken in Saxony, is said to be more pure and correct than in any other part of Germany. Almost all the Saxons adhere to the confession of Augsburg. In the sixteenth century, their electors defended and established the reformation which Luther preached; but since the time of Frederick Augustus, who embraced Catholicism in 1697, in order to make himself eligible for the crown of Poland, the reigning family has continued faithful to that form of worship.

According to Hassel,^a the population of the kingdom amounted to 1,386,900 individuals in the year 1822; Engelhardt^b states the number of inhabitants at about 1,400,000. If the mean be taken between these two numbers, the population may be estimated at 1,393,450 persons, and the number to every square mile at 250.^c This wealthy country contains three thousand one hundred and ninety-seven villages, fifty-seven burghs, and a hundred and forty-five towns, the most important of which, we shall endeavour to describe.

The country near Dresden, the capital, along the right bank of the Elbe, is likely to attract the notice of a stranger; he may admire the wealth of the environs, the variety of picturesque sites, the breadth and cleanness of the streets in the suburbs, and the length of the magnificent bridge across the river. That bridge, built of sandstone, is formed by sixteen arches; it is four hundred and seventy-four yards in length, and twelve in breadth.^d Benches are placed at different distances, and on the twelfth pier, a gilded crucifix is supported on a mass of unhewn rock about thirty feet in height. The fourth pier was blown up by Marshal Davoust on the 19th of March, 1813, in order that he might be better able to secure the retreat of his troops; but the bridge has been repaired since 1815. The lofty walls of Dresden were changed into fine walks in 1810, and three years afterwards new ramparts were constructed by the French, to protect themselves against the allied armies. These ramparts have since been demolished. Dresden is divided into the Old and New Town and three suburbs, the largest of which are Neustadt and Friedrichstadt.^e Sixteen of its eighteen churches, belong to the Protestants. *Frauen Kirche* (Women's church,^f) built after the model of St. Peter's at Rome, is situated in the Old Town; the light pillars on the roof support a tower that rises to the height of three hundred and forty feet. Sophia's church,^g or the church of the court, is remarkable for the sculptures that adorn its portal, for the pictures with which it is decorated, and also for a number of pillars that surround the altar, which are said to have

been taken from the temple at Jerusalem, and to have been brought to Dresden from the holy city by Duke Albert in 1476.

The finest buildings in Dresden are the chancery, the treasury, the mint, the arsenal, the townhouse, the theatres, the Japanese palace, the royal palace, and those of the princes Maximilian and Anthony. The royal palace is a large building of irregular architecture, adorned with a tower, the height of which is not less than three hundred feet.^h The exterior of the palace corresponds but ill with the valuable collections contained in it. When Frederick the Second of Prussia entered the electorate, after having declared to Frederick Augustus II., king of Poland, and elector of Saxony, that the measure was necessary for his own safety, and that the most rigid discipline should be observed by his troops, the elector fled to his army at Pirna, but the queen his wife possessing a degree of firmness and courage beyond what could be expected from her sex, refused to accompany him, and waited the arrival of the Prussians. In the mean time Ferdinand of Brunswick entered and plundered Leipsick, and Frederick arrived at Dresden. Having demanded of the queen the keys of the archives, she refused to give them up; his soldiers then advanced into the palace, and broke open the doors of the archives, but after a strict search for a treaty of offensive alliance between Russia, Austria and Saxony against Prussia, which had served as a pretext for Frederick's invasion, the treaty was not found. The hall of the great opera, which is contiguous to the king's palace, although finely decorated, is more worthy of notice from its size; it may contain eight thousand spectators. The view from the palace of Brühl, is perhaps the finest in Dresden, and the gallery of paintings in the same palace, is an object of curiosity to strangers. There are not fewer than five hospitals, besides one for orphans, and another for foundlings. Many places of education might be enumerated, among others, two gymnasia, a school that is reserved for the daughters of Catholics, several special schools, such as the one for cadets, another for the royal pages, and a third for engineers; in addition to these, may be mentioned a school of medicine and surgery, and five charitable institutions for the education of the poor. Different societies have been established, some of which are devoted to the encouragement of the arts and sciences. Several collections of antiquities and medals and three public libraries are open to the inhabitants; but the most valuable library is the one that belongs to the king; it contains two hundred and fifty thousand volumes, four thousand manuscripts,ⁱ and twenty thousand geographical maps. The population of Dresden is equal to 52,000 individuals, and the course of the Elbe is favourable to their commerce and industry.

Leipsick or Leipzig is, after the capital, the most important town in Saxony. It is advantageously situated in a fertile plain at the confluence of the Elster, the Parde and the Luppe; so much wealth has been diffused by its commerce, so much have enjoyments and luxuries increased, that many of the rich prefer it as a place of residence to Dresden. Much of the ground in the neighbourhood is

^a Statistischer Umriss, p. 68.

^b Handbuch der Erdbeschreibung des Königreichs Sachsen.

^c "1503 per sq. league."

^d "1420 feet long and 36 broad."

^e Dresden properly consists of three parts, Old Dresden, with its three suburbs, the new town (Neustadt,) and the Frederickstadt (Friedrichstadt,) which is connected with the suburbs of Old Dresden by a stone bridge over the Weisseritz. Ed. Encyc.—P.

^f "Eglise des femmes."—This is a mistake—*Frauen Kirche* is the church of Our Lady (*Notre Dame*) or St. Mary's.—P.

^g So called from Sophia, widow of Christian I., by whom it was partly constructed, 1602.

^h 355½ feet. Ed. Encyc.

ⁱ 150,000 volumes and 2000 manuscripts. Ed. Encyc.

laid out in public walks; the most frequented are the wood of Rosenthal, the garden of Hendel, Gehlis and its vicinity. These places were laid waste by hostile troops in 1813, but they have been embellished and improved since that period; no evils are irreparable, where commerce and industry exert their beneficent influence. It may be remarked, however, that the different spectacles, shows and other places of amusement in these public walks, form a singular contrast with some monuments of wo. The tomb of the fabulist Gellert is situated in the garden of Resch, the philosopher Gallisch was buried near the gardens of Hendel, and the grave of Poniatowski, who died like a hero, after having witnessed the allies of the French turn their arms against them, may be seen in the groves of Reichenbach.

The public places that are resorted to in winter, are the national theatre, the musical academy, the casinos, the winter gardens of Breiter, and different societies, which have been called *Resources*. If the streets in Leipsick were broader, it might bear a comparison with the well built towns in Germany. The principal edifices are the townhouse, the exchange, the much admired hospital founded by Georges,^a and another for the education of orphans. The church of St. Nicholas may be mentioned on account of its marble ornaments, and some paintings by Oeser, and that of St. Thomas for its fine organ. The castle of Pleisenburg, a building that resembles the citadel at Milan, is all that remains of the ancient fortifications; it contains a church, one of the towers of which serves as an observatory, and also what one would not expect to find in an old fortress, a good chemical laboratory, and an academy of architecture and painting. Leipsick has possessed an university since the year 1409; its schools are numerous and well attended, its scientific and literary societies have obtained deserved reputation, its museum of arts is rich in models and machines, and in short, its botanical garden, its collections and its libraries, are worthy of a town, that unites much commercial wealth and many varied branches of industry with the greatest book trade in the world.

Chemnitz or Alt-Chemnitz, situated on a river of the same name, is one of the most agreeable and best built towns in Saxony; its population is estimated by Hassel at 16,000 inhabitants. It may be remarked that it was the birthplace of Puffendorf; it is unnecessary to describe its six churches, its college and its four hospitals, the triple wall that surrounds it, and the old castle by which it was formerly defended. Plauen contains a population of six thousand souls, and possesses, like Chemnitz, a trade in linen, muslins and calicoes.

Freyberg ought to be more minutely described; the importance of its territory has been already mentioned in the account of the Saxon mines; it is watered by the Fulda, and is situated at an elevation of more than twelve hundred feet above the level of the sea. It has the appearance of an ancient city, from the number of its old buildings, but several streets are broad and straight, and there are many well built houses. The tombs of some of the earlier Saxon electors are to be seen in the cathedral, the finest of its six churches. A valuable collection of ancient armour is arranged in the townhouse, and a gymnasium and library have been established for the use of the inhabitants; but the celebrity of Freyberg depends on its mining academy, an institution that might serve as a model for others of the same sort; many distinguished men have been educated there, since

^a "L'hôpital de Georges"—Germ. *Georgenhaus*.

the time the collections were increased, and the method of teaching improved by Werner. The baths of Halsbruck, in the neighbourhood of Freyberg, are much frequented, and their salutary effect in different diseases has been generally acknowledged. The situation of Freyberg in a mountainous country, peopled by miners, whose manners are very different from those of the inhabitants in other parts of Saxony, and the singular appearance of the villages in the vicinity, render it interesting to strangers.

But if a painter or a naturalist wish to travel through a country that may amply reward them for their labour, they must go from Freyberg to Koenigstein and Schandau, two small towns in which the population is insignificant, but both of them surrounded by the most romantic scenery. The first was made impregnable by the late king. It is built on a rock about eighteen hundred feet above the Elbe; a well not less than eleven hundred feet deep, supplies the inhabitants at all times with cold and limpid water. The second stands on the banks of the Elbe, and is encompassed with mountains and rocks, which rise in the form of an amphitheatre. Its port is enlivened by an active trade, and many visitors repair every year to the mineral springs in the vicinity.

Zittau is built near the eastern extremity of Saxony in a fertile valley on the banks of the Mandau or Alterwasser. It contains about eight thousand inhabitants; its trade consists in cloth and also in white and printed linens. It possesses a gymnasium, a normal school, a museum of natural history, a collection of medals, five hospitals and an orphan house. If the church of St. John were wholly built, it would be the finest in the town, but a long time may elapse before it be finished. Those who leave the town by the Bohemian gate, arrive after a short journey at the village of Herrnhut, which is peopled by four hundred^b individuals, all of whom belong to the sect of Moravian brethren; they have their pastor and their church.

Bautzen or Budissin, the last town that we have to describe in the kingdom of Saxony, is situated on a rock that commands the Spree. An extensive commerce and numerous manufactories render it a place of some importance. It is peopled by 11,600 inhabitants; the fortifications, which are now almost in ruins, attest its antiquity, although its straight and well built streets give it the appearance of a modern town; the cause of these improvements has been attributed to fires, by which the old houses were at different periods destroyed. Among its public buildings are a theatre, a house of correction and an academy. The town is one of a small number, which affords an example of religious toleration, that we would wish to see every where imitated. The church of St. Peter is divided into two parts by an iron trellis; one part is reserved for the Catholics, and the other for the Lutherans. The hill of Protschen is situated on the left bank of the Spree, at a short distance from Bautzen. The ruins of an ancient altar still remain there; it is said to be the place where the gods of the Wends used to deliver their oracles. The old castle and the fortifications which served to defend the town, are believed to have been built during the ninth century; no mention, however, is made of Bautzen in history before the year 1078. But it has become famous in the annals of war from the successful struggle which the French army made in 1813 against the allied powers.

The two principal divisions of Ducal Saxony are Weimar

^b Qu. 1400—1500 (Morse.)

and Gotha. These two divisions, of which the second was subdivided into several parts, formed some years ago five principalities of unequal extent. The surface of the first, or the grand dutchy of Saxe-Weimar, is not less than one thousand and ninety-two square miles; that of the dutchy of Saxe-Gotha was equal to nine hundred and six; that of Saxe-Meinungen to two hundred and ninety-four; Saxe-Hildburghausen to a hundred and seventy-four; Saxe-Coburg to three hundred and seventy-eight.^a But the limits and names of the three last dutchies were changed after the death of the duke of Saxe-Gotha in 1825. The territories of Meinungen,^b Hildburghausen and Saalfeld make up at present the dutchy of Saxe-Meinungen; its superficial extent may be upwards of seven hundred and twenty square miles, and the population amounts to a hundred and twenty-eight thousand inhabitants. The territories of Altenburg, Ronneburg, and Eisenberg, which formed part of Saxe-Gotha, now make up the dutchy of Saxe-Altenburg; its surface is equal to four hundred and fourteen square miles, and its population to a hundred and three thousand inhabitants. Lastly, the territory of Coburg with the territories of Ohrdruff and Gotha, and that of St. Wendel on the left bank of the Rhine, make up the dutchy of Saxe-Coburg-Gotha, which is about seven hundred and sixty-two square miles in extent, and contains one hundred and thirty-nine thousand inhabitants.^{c d}

The grand dutchy of Saxe-Weimar is peopled by two hundred and five thousand individuals, including about a hundred and eighty-seven thousand five hundred Lutherans, six thousand three hundred Calvinists, ten thousand Catholics and twelve hundred Jews. They inhabit thirty small towns, twelve burghs and five hundred and eighty-six villages. The territory has been divided into two provinces or principalities, those of Weimar and Eisenach. The first is situated between the Prussian province of Saxony, and the principalities of Schwarzburg, Reuss and Rudolstadt; the second between the possessions of Prussia, the dutchy of Saxe-Coburg-Gotha, the electorate of Hesse, and Bavaria.

The land in the principality of Weimar belongs to the secondary formation. White and ferruginous sandstones are observed, and limestone similar to that in the chain of Jura. Some hills extend from north-east to south-west, and join the range of the Thuringerwald; the rest of the country consists of extensive plains and thick forests. The soil in most places is rich and fruitful. The land in the principality of Eisenach is of the same formation as in that of Weimar; sandstone, slate, marble and coal are found in the country; but there are some extinguished volcanos on the banks of the Werra, that are connected with the group which extends to the left bank of the Rhine. Different metals, such as silver, copper and iron, have been observed in the same principality.

The principal towns in the grand dutchy are Weimar, Apolda, Jena and Eisenach. They may be briefly described, for none of them are very large. Weimar, situated on the Ilm, contains 9000 inhabitants. In the principal church are the tombs of the princes and princesses of the

ducal family, and that of the painter Lucas Cranach; the nave of the same church is adorned by some of his paintings. The town possesses several public schools, a college, an academy of painting and some charitable institutions. The palace of the prince is considered the finest edifice; the interior may be mentioned on account of its rich furniture and valuable collections, which consist of armour, medals and paintings. The park before the palace is laid out after the English manner, and it has been more admired than any other in Germany.

The romantic country seat of Belvedere in the neighbourhood of Weimar belongs likewise to the prince. A school of agriculture has been established at Tieffurth; the fine gardens of the late dutchess dowager in the same part of the country are still kept with great care; monuments have been erected there to the memory of the princes Constantine of Weimar, and Leopold of Brunswick. The grave of the celebrated Wieland is to be seen at Osmannstedt. A mineral spring, that has been of late much frequented, is situated at Berka, a village about six miles from Weimar.

Apolda is peopled by 3000 individuals, and its trade consists chiefly in cloth. Jena, which contains 5000 inhabitants, holds a distinguished rank among the university towns in Germany. Several libraries, a museum of natural history, a botanical garden, a theatre of anatomy, and clinical lectures, are open to those who attend the university. The different learned and scientific societies, as well as the literary gazette published at Jena, tend to diffuse a taste for study. The town is built on the Saale; the memorable battle which bears its name, was fought in the neighbourhood on the 14th of October, 1806.

Eisenach is agreeably situated on a height that commands the Nesse; it is surrounded by walls, and possesses a ducal castle, a mint, two public schools and several charitable institutions. It contains 8000 inhabitants; it was founded in the year 1070.

Different districts attached to the principality of Eisenach are situated in Bavaria, Saxe-Meinungen and Saxe-Coburg-Gotha; but all of them are so small as to render any mention of them unnecessary. The same may be said of another district dependent on the circle of Jena, and situated in the Prussian province of Saxony. The only town in it is Alstedt, which contains about 1900 inhabitants.

An extensive commerce is carried on in the grand dutchy of Saxe-Weimar. More than a hundred thousand pieces of woollen stuffs are annually manufactured at Eisenach. The trade of Jena and Apolda consists in the same articles, and Kaltensundheim is peopled by weavers. There are upwards of forty potters at Bürgel, and a still greater number of workmen, that find employment at the vinegar distilleries in the same place. Weimar is noted for its leather, Stutzerbach for its glass and paper, and Ilmenau for its porcelain and hardware.

The revenue of the grand dutchy amounts to the sum of 1,800,000 florins or £180,000; the public debt is equal to 6,296,000 florins or £629,600, and a sinking fund has been established for its liquidation. The armed force consists of two regiments of infantry and a company of cavalry;

	Sq. leagues (M. B.)	Sq. miles (Morse.)
^a Saxe Weimar	182	1460
Saxe Gotha	151	1200
Saxe Meinungen	49	448
Saxe Hildburghausen	29	237
Saxe Coburg	63	594
^b Meinungen or Meinigen.		

	Sq. leagues (M. B.)
^c Saxe Meinungen	120
Saxe Altenburg	69
Saxe Coburg-Gotha	127

^d We are indebted for these details concerning the limits and population of the three dutchies to M. Ad. Balbi, who communicated to us part of the manuscript of his work entitled: *Balance Politique du Globe*.

but the inhabitants rose in mass in 1814, and an army of eighteen thousand men was collected.

The subjects of the grand duke of Saxe-Weimar are indebted to him for the advantages of a representative government. According to the constitution of 1816, each district appoints a deputy. Ten are chosen from the class of burgesses, and as many from the rural districts.^a Every citizen of Weimar or Eisenach, who possesses an income of 500 rix-dollars or £75, and in the other towns, every burgess, whose income amounts to 300 rix-dollars or £45, may be elected a deputy. A proprietor, whose land is worth 2000 rix-dollars^b or £300, may be deputed by the district. No one can be deprived of his eligibility on account of his birth, rank or religion. The deputies are elected for six years; the elections are public; persons in authority are not permitted to solicit suffrages for candidates.^c The assembly of deputies names counsellors for life, who are entitled to sit amongst them, and to give their votes. An assembly must be summoned at the lapse of three years after its dissolution;^d but a commission composed of two deputies and a *marshal* or chief of a district, who is chosen by the deputies, watches constantly over the public interest. The assembly, together with the prince and his ministers, fixes the budgets, and establishes or abolishes taxes and imposts. It has the right of making representations to the prince on whatever relates to the wants and necessities of the people, individual liberty and the protection of property, and also on the correction of abuses and the conduct of ministers. Laws may be proposed either by the assembly or by the prince; the latter has the right of rejecting without assigning his reasons. If a law be proposed by the assembly, and rejected by the prince, the same proposition may again be made at two other meetings. But if the prince proposes a law, the assembly cannot reject it without assigning the reasons of its refusal. If a law be sanctioned by the different powers in the state, and not put into execution, the districts may claim redress from the Germanic confederation, after a judgment of the court of appeal at Jena, and representations made to the assembly by the people. Such are the elements to which this small state owes its prosperity; it might be well if its constitution were studied by the legislators of more powerful kingdoms.

The revenue of the dutchy of Saxe-Meinungen may amount to £70,834;^e the number of troops is equal to eleven hundred men. A great part of the soil is mountainous and well wooded; it abounds in metals, salt and coal. Branches connected with the chain of the Rhœne-Gebirge extend across the country. Its principal towns are Meinungen, Hildburghausen and Saalfeld. A lucrative trade is carried on in these towns and in several villages; it consists in iron, glass, paper and different manufactures. The capital,^f of which the population is equal to 4500 inhabitants, is surrounded by mountains and situated on the Werra. The useful institutions are a college and an orphan hospital; the public buildings are a church, the ducal palace and the chamber of the states. Its trade consists chiefly in cotton and fustians. Hildburghausen, a small town of 3500 inhabitants, is also watered by the Werra. Saalfeld contains 3000 inhabitants, a ducal castle, a college,

^a The assembly consists of 31 members, viz. 10 chosen by the possessors of manorial estates, 10 by the class of burgesses, 10 by the class of peasantry, and one by the university of Jena.—P.

^b "A peasant (*bauer*) whose property is worth 2000 rix dollars —"

^c "The elections are entirely free, and protected from any undue influence of authority."

and a mint. A monument has been erected near the town, to the memory of the young prince Lewis Ferdinand of Prussia, at the very place where he was killed on the 10th October, 1806.

The dutchy of Saxe-Altenburg, more populous in proportion to its extent and more wealthy than the preceding, possesses nearly an equal revenue. Its capital,^g which is well built and peopled by ten thousand inhabitants, contains four churches, a gymnasium, a public library and a museum of natural history. Ronneburg is about fifteen miles^h distant from Altenburg; it was formerly defended by an old castle; the number of inhabitants does not exceed 4000. It may be added that the mineral baths near the town, notwithstanding their agreeable situation, and the money that has been laid out in embellishing them, are not much frequented. Eisenberg, a small town of nearly the same population as the last, and commanded by a strong castle, carries on a trade in glass and different manufactures.

The dutchy of Saxe-Coburg-Gotha is the last of the Saxon principalities that remains to be described. Although it be almost unnecessary to notice small territories, scattered in different countries, and belonging to secondary states, yet it ought to be mentioned that the dutchy of Saxe-Coburg-Gotha comprehends, besides its possessions on the declivities of the Rhœne-Gebirge, and those which it has received as an inheritance from the dutchy of Saxe-Gotha, a district occupying the greater part of the territory between the Nahe and the Glan on the left bank of the Rhine, now called the principality of Lichtenberg. The country in the neighbourhood of Gotha is mountainous; a branch of the Thuringerwald extends to the north, and that part of ducal Saxony is supplied from it with coal and different metals. The country to the north of Coburg is occupied by the continuation of the Rhœne-Gebirge, which joins the Thuringerwald, and which is there called Sonnenberg by the Germans.ⁱ Granite crowned with basalt is observed in that part of the Rhœne-Gebirge chain. Calcareous rocks containing organic remains, and belonging to the secondary formations, are situated on the declivities. All the land in the principality of Lichtenberg abounds with coal and limestone.

The country of Sonnenberg, though by no means important from its extent, is remarkable for its industry. It affords a striking example of the prosperity which a people may attain by labour and economy. That district covered with mountains and forests, derives annually from its products, apparently of little value, the sum of £5000.^k The price given for them is not the price of the materials but of the labour bestowed on them. They consist of toys for children, boxes, marbles, glass buttons and different articles of hardware and cutlery. It may be said that commercial interest first taught these mountaineers the advantages that result from the division of labour. One makes the body of a doll, another the arms, a third unites them, and a fourth paints it. They follow a like method with whatever they make of wood or pasteboard. Thus it happens that they can afford to sell their handiwork at a very low price; it may be stated for instance that seventy dozen of childrens' trumpets can be purchased for half a crown or three shil-

^d "An assembly must be held at least once every three years."

^e "1,700,000 francs." ^f Meinungen. ^g Altenburg.

^h "5 leagues"—12 miles (Morse.)

ⁱ Dictionnaire de la Géographie Physique (Encyclopédie Methodique), tom. V. art. Rhœne-Gebirge.

^k "60,000 francs"—about 2500*l*.

lings. The toys and other articles made in the district are sent to different parts of Germany, and are sold by the name of Nuremberg wares, at Frankfurt, Leipsick, Dresden, Nuremberg, Munich and other trading towns, from which they are exported to every country in Europe, and even to some parts of America.

The inhabitants in the dutchy of Saxe-Coburg-Gotha, like those of Saxe-Weimar, live under a representative government.^a The military establishment consists of 1400 men; its revenue is estimated at £75,000, and the public debt is not more than £170,000.^b

The principal towns are Gotha, Coburg and Saalfeld. The first is as fine a city as any in ducal Saxony, and perhaps more remarkable than any other for its scientific institutions. Its gymnasium is much frequented, and from its observatory important services have been rendered to astronomy. It possesses, besides, a museum of natural history, and a cabinet of medals. The ducal palace stands on a height above the town, and contains several valuable collections.^c Gotha is agreeably situated on the side of a hill above the Leine. It is adorned by several fountains and some elegant buildings. It was founded in the year 964 by an archbishop of Mayence; it contains at present 11,000 inhabitants. The trade of Gotha consists principally in porcelain, and in woollen and cotton stuffs.

Coburg, too, is noted for its porcelain and trinkets in petrified wood; it possesses a considerable trade in tobacco, linen, and woollen goods. Built in the middle of a beautiful valley on the banks of the Itz, many strangers resort to it. The places of amusement are a theatre, concert rooms, and casinos, one of which is called the Erholung.^d The finest buildings are the ducal palace and the townhouse. Although the arts and sciences are not so much encouraged as at Gotha, it has its observatory, museum of natural history, and a public library. The population, according to the latest calculations, amounts to eight thousand inhabitants.

Little can be said of St. Wendel, in the principality of Lichtenberg; it is considered a town, but it contains hardly two thousand inhabitants.

Having thus given an account of the different dutchies of Saxony, we shall endeavour to describe the electorate of Hesse, a country more important than any of these principalities. Possessing a population which Hassel estimates at five hundred and eighty-five thousand individuals, and a surface not less than three thousand three hundred and ninety-six square miles,^e it holds a distinguished rank in the Germanic confederation. It is bounded on the north by Hanover and the Prussian province of Westphalia, on the west and the south by the principalities of Waldeck and Hesse-Darmstadt and by Bavaria, and on the east by the Prussian province of Saxony, the grand dutchy of Saxe-Weimar, and the kingdom of Bavaria. It possesses also the lordship of Smalcalden, which is surrounded by the Saxon dutchies.

Hesse is principally formed by those deposits of limestone which the Germans call *muschelkalk*, and by the sandstone, known in the same country by the name of *quadersandstein*.

^a "Its constitution is similar to that of Saxe-Weimar."

^b "Revenue, 1,800,000 francs—public debt, 4,000,000."

^c The palace contains the museum of natural history and the cabinet of medals above mentioned, the last of which is particularly valuable, besides an extensive library, and a splendid collection of paintings, prints, charts, and mathematical and philosophical instruments. The observatory is about half a league from Gotha, on the insulated mountain of Seeberg, and has been under the charge of Baron Von Zach.—P.

Volcanic summits rise from the midst of these rocks; they are similar to those that have been already mentioned in the account of the provinces on the Rhine. Ramifications of the Vogelberg and the Rhœne-Gebirge extend through the whole of Hesse to its northern extremity, and form the numerous vallies by which the soil is indented. Thus, the land is better adapted for the growth of timber and pasturage than for agriculture.

The highest summits are situated in the country of Fulda, and it too is nearest the centre of the Rhœne mountains. The Milzeburg reaches to the height of three thousand two hundred and ninety feet, and the Dammersfeld to three thousand six hundred and forty.^f Two distinct ranges may be observed in the northern part of the electorate; the one on the south-east of the great valley of Cassel, is formed by horizontal strata of old red sandstone; the other on the north-east is composed of calcareous rocks crowned with basaltic summits. The Habichtswald is not the least remarkable of these heights; its summit is occupied by the eight-sided pavilion of Weissenstein, and its beds of bituminous wood are worked and used as coal. At a greater distance is situated the Alberg, a mountain of a conical form, less elevated than the last, and which also contains masses of a combustible substance still more extensively excavated; on its summit are still to be seen the ruins of an ancient castle. But Mount Meisner, which rises at the distance of about eighteen miles from Cassel, is more remarkable than any of the rest from the rocks and substances that compose it. M. Daubuisson de Voisins has given a description of it,^g from which we shall borrow some interesting details. It is separated from all those that surround it, and is equal in elevation to two thousand three hundred and thirty-four feet^h above the level of the sea.ⁱ From its base to its summit, which terminates in a plain about six miles in length and three in breadth, are observed in the first place an extensive mass, entirely composed of shell limestone and sandstone; above it is a layer of sand, then another of *lignite* or bituminous wood, not less than a hundred feet^k in thickness, and covered with basalt that varies in height from three hundred and thirty to five hundred feet.^l

"The observer," says M. Daubuisson, "after having examined the component parts of the mountain, and compared them with those of the neighbouring country, must come to the conclusion that the enormous mass of wood which rests on its summit, has been transported to it. It is impossible that all the trees could have grown on the spot. The ground on which they were deposited has been at one period a hollow, and the water by which they were carried thither, flowed from a higher region. The basalt that now covers them, issued from a crater situated at a more elevated level. The lofty country from whence the trees as well as the lava descended, exists no longer, for the mountain commands at present all the neighbouring district to the distance of forty-five miles, and indeed there are in the whole of lower Germany, only a few isolated summits of greater elevation. All the contiguous territory, which at one time must have been higher than the mountain, has therefore disappeared; it has been destroyed and taken away, but not

^d Erholung signifies recreation in German.

^e "566 sq. leagues."

^f Measures of the original.

^g *Traité de Géognosie*, tom. II. pp. 230, &c.

^h "700 metres."

ⁱ It is higher than any other mountain in its vicinity.

^k "30 metres."

^l "100 to 150 metres."

by a sudden or instantaneous cause. Time, assisted by the elements of the atmosphere, has effected the change, cut the mountain into its present shape, made it a detached mass, and separated it on every side." It may be added, that the fossil wood of Meisner, like all the other lignites, must have been heaped by fresh water deposits. Thus the great body of the mountain, after having been formed in the depths of the primitive ocean, must have been the bed of a lake that washed the foot of a volcano, the remains of whose eruptions are the basalts on the summit. To how many reflections might not such phenomena give rise!

Fossil fish, in sufficient preservation to discover the genera to which they belong, are found in the copper and bituminous schistus in the neighbourhood of Riegelsdorf as well as in that of Mansfeld. Almost all these remains of a creation for ever annihilated, differ from the fish that are known at present; it has been remarked that those of the same species are generally found together, as if they had congregated while alive. Riess, a German naturalist, affirms that the hand of an ape was found in the schistus, but it was probably part of a manati or some other marine mammiferous animal, since no remains of the *quadrumana* have hitherto been observed in the different deposits that form the crust of the earth.

Copper, and clay used in making pottery, are obtained in the territory of Hanau. Alabaster of a very white colour is found in the neighbourhood of Konnefeld; tripoli and jasper are collected in the western districts watered by the Lahn; the numerous salt springs near the frontiers of Hesse-Darmstadt, and in the district of Smalcalden, produce annually more than a hundred thousand quintals of salt; the mines that are worked near the town of Smalcalden, yield more than thirteen thousand quintals of bar iron, and four thousand of natural steel. The district of Cassel has likewise its mineral wealth; three or four salt pans have been erected at a saline spring, near the burgh of Carlshafen, at the base of the Reinhards-Wald. Twenty-two refining houses and twenty-four salt pans are erected at another and more abundant spring near Allendorf. The salt obtained from it every year is said to be worth £17,000.^a Sixty workmen are employed at the iron mine of Hohenkirchen; nearly the same number of men earn a subsistence at another mine near Homberg, and at a third not far from Rommershausen. The mountain of Hirschberg, in the neighbourhood of Almerode, contains beds of schistus, from which about four hundred quintals of alum are annually extracted. The total produce of two mines, near Riegelsdorf, one of cobalt, and another of copper, is not less than twenty-five thousand quintals, and they furnish employment to more than a thousand individuals. Other mines of copper, less valuable than the last, extend to the west of Cassel. Lastly, coal is obtained in different parts of Hesse; there are, besides, gold and silver mines, and several thermal and sulphureous springs.

The climate of Hesse is on the whole temperate, but the winters are sometimes severe. As in every other mountainous country, the vallies and the high grounds exhibit differences of temperature, that influence in a greater or less degree the nature of the agricultural products. Different kinds of grain, leguminous plants and fruits grow on the plains in the neighbourhood of Cassel and Hanau.

^a "About 400,000 francs." ^b Rainier—Moreri, art. Hainault; Reinier—Encyc. Method. Geog. Mod. Hainaut.

^c The states of Hesse have not been assembled since 1815. In that year the elector summoned an assembly of deputies, not only from the no-

The grape too ripens on some of the hills. Flax and hemp are raised in several vallies, and wherever the land has not been cultivated, the woods are abundant. It appears from the statements of Hassel, that in all the dependencies of the electorate, there are 1,337,420 acres (*arpents*) of arable land, 329,688 laid out in gardens and orchards, 436,675 in meadow or pasturage, and 984,160 in woods or forests.

The preparation of flax, the weaving of linen and different woollen stuffs, the working of metals, and the making of glass, porcelain and earthen ware, form the principal manufacturing employments of the inhabitants of Hesse. It is chiefly at the two extremities of the electorate, in the territories of Cassel and Hanau, that the manufacturing products are most considerable. It might be wished, however, notwithstanding the protection which government grants to industry, that it was still less restrained, and particularly that there were fewer corporations; their influence and the spirit which guides them all, are more adapted to prevent than to facilitate improvements; not more than a few years have elapsed since it was unlawful to carry on several trades in the villages. Stein assures us, that even at present a man cannot become a grocer unless a bodily defect renders him unfit for a different occupation. It is to be hoped that the council of arts and trades, which has been lately established, and whose duty it is to maintain existing regulations, to examine and make reports concerning inventions and proposed improvements, and to award medals and premiums to the workmen and manufacturers, who send the most approved specimens to the exhibitions that are held at stated times, may tend to convince government and the nation of their real interests.

The commerce of Hesse consists in the exportation of its products and manufactures, and in the conveyance of goods sent by Frankfort to the north of Germany. Its navigable rivers, the Weser, the Werra and the Fulda, facilitate the means of transportation. According to Stein, Cassel exports every year to foreign fairs, thread and linens to the value of about £208,300, besides more than 120,000 bottles of mineral water, and a great quantity of other articles of merchandise, for which it receives in exchange, sugar, coffee, cotton, French and German wines, flax-seed, hemp-seed, and various other commodities. Although it is vain to attach any importance to the balance of trade, since every state must be obliged to furnish a value equal to what it receives, it may be said, however, that Hesse derives some advantage from its commercial relations with foreign countries, because the industrious classes being sober and economical, consume less than they produce.

The electorate of Hesse was destroyed by Napoleon in 1806, who added the greater part of its territories to the kingdom of Westphalia, while the county of Hanau was united to the grand duchy of Frankfort. But Hesse again became an independent state in 1813; a prince was then restored to his possessions, whose family, according to genealogists, is descended from Ramir,^b surnamed the *Long Necked*, Count of Hainault in the year 875. The government is monarchical, but the power of the prince is modified by that of the states,^c which are composed of the principal ecclesiastics of the different Christian communions, the mayor of Cassel, seven deputies elected from the nobility, eight from the burgesses, and nine from the landed proprietors.^d

bles, clergy and burgesses, but from the class of peasants (*bauern*;) but as the three first opposed the introduction of the other class, the new constitution was rejected, and the states dissolved *sine die*.—P.

^d "Peasants"—(*Bauern*.)

Catholicism is not the most common form of worship in the electorate; the number of Calvinists amounts to 336,800, and that of Lutherans to 140,000, while those of the Catholic persuasion do not exceed 102,800; the Jews may be equal to 5300, and the Mennonites to 100. Many families are sprung from French emigrants, three or four thousand of whom left their country and settled in Hesse after the fatal revocation of the edict of Nantes. The persecuted protestants being hospitably received by the Germans, were grateful to their benefactors; the French language is no longer spoken, their descendants are confounded with the other inhabitants.

If the Jews in the electorate are not in the same degraded state as in Poland and several German towns, they are indebted for it to the Westphalian government, by which they were made to participate in the rights and privileges of citizens. A single restriction was imposed on them; they were compelled to keep their ledgers and commercial accounts, not in the Hebrew, but in the German language.

A censorship of the press was established throughout the electorate in the year 1816; no book printed in Hesse or published in a foreign country, can be sold or distributed, until it be approved by the agents of government. The cause of this measure may be thus explained. The property of the prince, nobles and clergy was sold, imposts were diminished, and feudal services abolished, when Hesse was added to the kingdom of Westphalia. When the ancient order of things was re-established, when feudal services and other burdens were exacted from the inhabitants, when those that had purchased land, were summarily dispossessed of their property, the discontent became so general, that government thought it prudent to prevent the expression of public opinion. Nothing indeed could have been more impolitic or more unjust than the decree, by which the ancient proprietors were put in possession of their property, and the purchasers under the Westphalian government, only entitled to the sums that they had expended in improvements. Some powerful individuals, it is true, obtained through the assembly of the confederation, an indemnity equivalent to the interest of the capital which they had laid out; but the petty proprietors could not bring their complaints before the Germanic confederation. Other grievances were added to this motive of discontent, which in truth concerned only the least numerous class; the public burdens were increased; the inhabitants had to pay the old taxes and imposts, in addition to those imposed by the Westphalian government; indeed it may be affirmed without fear of contradiction that the proprietor pays at present in the shape of contributions, three times as much as what he paid in 1806. The necessities of the crown could not be offered as an excuse either for the measures relative to the national domains, or for the augmentation of the taxes, because at the time of the restoration, the prince received £75,000 from France, £160,000 from England, and £6500 from the Jews to confirm them in their privileges as citizens.^{b c}

Hassel estimates the revenue of the electorate at four millions five hundred thousand florins, and its public debt at about one million nine hundred and forty-five thousand. Thus it may be concluded that both in a financial and com-

mercial point of view, it is one of the wealthiest secondary states in Europe.

The military establishment is proportionate to its resources. The general levy, which was made in 1814, under the name of *landsturm*, was not less than eighty-two thousand infantry and two thousand cavalry. The army in 1816 consisted of about twenty-two thousand men, of whom six thousand formed the *landwehr* or force for the defence of the country. It has been since reduced to nine thousand, and out of that number, five thousand six hundred are the contingent which the state furnishes to the confederation. But as if it were the object of government to keep up a well disciplined and effective army, the period of military service has been fixed for twelve years, and every soldier, who engages after the expiration of that time for other twelve years, is honoured with a mark of distinction, and receives at the end of his second engagement, a civil employment or a pension. The public tranquillity is maintained by a body of dragoons, trained after the manner of the French gendarmes.

Sixty-two towns are situated in the electorate, the least important of which are Rinteln in the neighbourhood of Hanover; Hof-Geismar, which is known from its mineral springs; Eschwege, watered by the Werra, and enriched by its trade in tobacco and the conveyance of goods; Allendorf, at the base of Mount Meisner, near which a saline spring yields annually more than 90,000 quintals of salt; Rothenburg, the residence of the landgrave of Hesse-Rothenburg, who possesses, under the sovereignty of the elector and the duke of Nassau, eight towns and two hundred and nineteen villages, but who in consequence of a private arrangement between them, receives at present an annual income of £12,500; lastly, Gelnhausen, built on a lofty hill, at the foot of which flows the Kinzig, and surrounded by a territory rich in vineyards.

But several towns of greater importance may be mentioned. Cassel, the most considerable, is the capital of the electorate. Stein, Hassel and other authors who have written on the statistics of Germany, do not agree concerning the number of its inhabitants, but it is probably not less than 20,000. It is divided into three principal quarters: the Old, the New and the Upper New Town. The two first are old and consequently ill-built; the last or the most modern consists of broad and straight streets, adorned with elegant houses. The finest street or that of Bellevue, commands a view of the castle. The principal squares are the Royal square, and those of the Parade, Frederick and the Gendarmes. The most important public buildings are the Catholic church, the arsenal and the electoral palace, which was burnt to the ground in 1811, but which government began to rebuild in 1817. The town possesses a lyceum, a normal school or seminary for the instruction of schoolmasters, an observatory and several other literary institutions. The electoral museum contains a valuable library and a rich collection of curiosities and of philosophical and mathematical instruments. The garden of Bellevue, the esplanade and the park of Augarten are the most frequented walks in the town. The country seat of *Wilhelmshöhe* is more frequently visited than any other part of the neighbouring country; its gardens, fountains and cascades render it perhaps the finest place of the kind in Germany. Cassel cannot be ranked in the first order of trading towns, still

^a "1,800,000 francs from France, 1,975,000 from England, and 13,000 from the Jews—making a total of 3,788,000 francs."

^b See Stein's Geography, (in Germ.)

two large fairs are held in it every year; its manufactures are linen, woollen stuffs, porcelain and earthen ware.

Marburg on the Lahn is styled the capital of Upper Hesse; it is according to Hassel a town of 6588 inhabitants. The ancient Gothic church is finer than any of the other buildings; the university was founded in 1527; its library may be voluminous, but many of the works are now out of date. The trade of the place depends on its manufactures, and the most important consist in serge and camlet.

Smalcalden or Schmalkalden, watered by a small river of the same name, is an ancient town, defended by two castles, those of Heshenhof and Wilhelmsburg; they belong at present to the elector. A town that contains 5400 inhabitants, possesses salt springs and iron works, and carries on a considerable trade in cutlery, must be regarded as a place of some importance in a country like Hesse. But Smalcalden has other claims to distinction, which an historian may consider still more important; conferences were held and treaties signed there, at different times from the year 1529 to the year 1540, by the Protestant princes, who determined to support the reformation against Charles the Fifth, who had become the protector of Rome, after having pillaged it. Christopher Cellarius was born in the same town; he is known to posterity from his editions of different ancient authors, and from his excellent treatise on geography. Niceron the Jesuit has published a catalogue of his works.^a

Fulda, a town on the river of the same name, is larger than Smalcalden; its population amounts at least to 8800 inhabitants. The finest buildings are the cathedral, which contains the remains of St. Boniface, the apostle of the Germans, whose memory is held in great veneration in the country, and the palace of the sovereign bishop who governed the dutchy of Fulda till the year 1803, when his states passed into the hands of the prince of Nassau-Orange, and afterwards became a Hessian province in consequence of different arrangements. The town is regular and well built; the gymnasium, the library, the school of arts, the school of midwifery, and the other institutions, are well supported. In the time of the bishop it contained many convents, the buildings of which are now used for a better purpose. The Capuchins and Franciscans reside together in the neighbourhood of the town; two convents for women, to whom the education of young persons is entrusted, have been allowed to remain.

The country of Fulda, though not extensive, is very productive; abundant crops of wheat are raised; it yields different fruits and good wine, not quite so good perhaps as when the principal vineyards belonged to the monks, who kept the wines for ten years in large casks, and by doing so, increased their value ten-fold. It is said that some of these wines have been sold for nine florins the bottle. The people are active, sober and industrious.

Hanau, next to Cassel, the largest town in Hesse, is the capital of a province. Hassel makes the population amount to 9634 individuals, but according to Stein, it is not less than 12,000. The latter writer does not appear to have over-rated the number of inhabitants. Hanau is divided into the old and new town; the last part is regularly built. Among its curiosities, there are a museum belonging to the

Wetteravian Society of natural history, and the cabinet of minerals, collected by M. Leonhard. The town is pleasantly situated in a fruitful country, at the confluence of the Kinzig and the Maine. The elector has a country-house in the neighbourhood, called *Philippsruhe*, and there is another seat belonging to the prince at the thermal springs of Wilhelmsbad, about three miles distant from Hanau; its gardens are large and well laid out, but they are not kept with sufficient care; they are resorted to by the inhabitants and by the strangers that visit the baths.

We have given a detailed account of electoral Hesse; it would be difficult however to say much concerning the landgraviate of Hesse-Homburg, a principality that, according to official accounts and exact calculations, contains only 20,000 inhabitants, and of which the superficial extent does not exceed a hundred and two English square miles.^b The revenue amounts only to £19,084,^c and the military force consists of two hundred men. It has besides another disadvantage, for it is made up of two petty territories nearly sixty miles^d distant from each other. The one, or that of Homburg, is situated between the possessions of Hesse-Darmstadt, electoral Hesse, the Prussian principality of Wetzlar, Nassau and Frankfort on the Maine; the other, or that of Meisenheim, on the left bank of the Rhine, lies between the Prussian province of the Lower Rhine, the principalities of Birkenfeld and St. Wendel, and the Rhenish Bavarian provinces.

The land in the two portions of Hesse-Homburg, is fruitful in grain, and abounds in metals; several mines are worked in the territory of Homburg, and there is no scarcity of iron or coal in that of Meisenheim. Homburg, the capital of the principality, is situated on the Lahn, and, according to Stein, contains a population of 2700 souls; it carries on a trade in linen, silk, flannel and woollen stuffs. Meisenheim, on the banks of the Glan, is only a large burgh with a population of 1730 inhabitants. The commerce of the last place consists in the produce of its mines and glass works.

The grand dutchy of Hesse-Darmstadt, though not quite so large as electoral Hesse, is however more populous. The extent of its surface does not appear to be correctly ascertained, at least German geographers differ on the subject. Hassel estimates it at about a hundred and seventy-seven German square miles, Lichtenstern at two hundred and four, Stein at a hundred and sixty-nine, Fabri^e at nearly two hundred and fifteen, and Crome at a hundred and ninety-six. The last estimate is apparently the most correct, and the most conformable to our own calculations, and it may be assumed that the extent of the grand dutchy cannot be much less than two thousand three hundred and fifty-two English square miles.^f Its population, according to Fabri, amounted in 1819, to six hundred and thirty thousand inhabitants, and according to Hassel,^g to six hundred and seventy-three thousand six hundred individuals in the year 1822. It appears, however, that the number of inhabitants at present does not exceed six hundred and fifty thousand, so that on an average there are more than two hundred and seventy individuals for every square mile.^h Some notion of the resources of the country may be inferred from so dense a population.

^a Niceron, Mémoires, t. V. p. 273, &c.

^b "17 sq. leagues."

^c "460,000 francs."

^d "More than 20 leagues."

^e Handbuch der neuesten Geographie.

^f "According to the last estimate — the extent of the grand-dutchy would be equal to 544 sq. leagues."

^g Statistischer Umriss, page 92.

^h "If we take the mean between these two numbers, or 650,000, the average population will be 1195 individuals to every square league."

Hesse-Darmstadt consists of two portions which are separated by the territory of Frankfort on the Maine. The first is bounded by the principality of Nassau, and the dependencies of Wetzlar on the west, and by electoral Hesse on the north, east and south. The second is bounded by the principality of Nassau, the territory of Frankfort, and electoral Hesse on the north, by Bavaria on the east, by the grand dutchy of Baden on the south, and by the Rhenish Bavarian provinces on the west.

The lands in the territory of Hesse-Darmstadt, situated to the north of Frankfort, are composed, like those in electoral Hesse, of limestone,^a sandstone and volcanic rocks. The districts that extend to the south of Frankfort, belong to the primitive formations, or those in which the remains of organic beings have never been observed. The basaltic chain of Vogelberg stretches across northern Hesse; the heights are covered with forests, and their sharp and peaked summits, like those of Feldberg, are nowhere higher than two thousand eight hundred feet.^b The Malcenberg on the banks of the Rhine, or in the southern part of the country, rises to the height of three thousand six hundred feet^c above the level of the sea. The country on the banks of the Rhine is more fruitful than the northern part of Hesse-Darmstadt. In almost every part of the country, the sides of the hills are planted with vineyards; the plains and the vallies yield rich harvests, and in many places are covered with fruit trees; the mountainous districts are less fertile, but their deficiency in that respect is supplied by their valuable mineral productions.

Although the Hessians in general are laborious and active, the people on the mountains are still more so than the other inhabitants. The commerce of the agricultural districts consists in corn, wines, dried fruits, oxen and sheep; that of the higher districts in cotton, woollen and linen manufactures, leather, metals and cutlery. The advantages that industry derives from a rich and fruitful soil, have been promoted by a wise and enlightened government, which was among the first that adopted the representative system. The Hessian nation could not expect less from a descendant of Philip the Magnanimous.

There are more Mennonites in the grand dutchy of Hesse-Darmstadt than in the other German principalities, Hassel computes their number to be nearly a thousand; the same author estimates the number of Jews at about fifteen thousand, and that of the Lutherans and Calvinists at nearly five hundred thousand; the Catholics make up the rest of the population. The number of Lutheran churches is equal to six hundred and thirty-five, those of the Calvinists to a hundred and twenty-six, and those of the Catholics to a hundred and sixty-six.

The grand duke assembles the deputies of the states, whenever it is necessary to levy contributions. A new system of laws, framed after the model of the Austrian codes, was put in force in 1819.^d The criminal jurisprudence has been committed to the revision of a supreme court of appeal. The public works are superintended by a council, over which the grand duke presides. The justices of peace in each province are subject to the jurisdiction of the provincial courts. Separate courts or colleges, as they are

called, have been erected for the purpose of regulating the taxes and contributions, and auditing the public accounts.

According to Hassel, the revenues of the state were equal in 1821 to the sum of 4,997,092 florins, and the expenditure to 4,496,000; namely, 771,000 for the civil list, 830,000 for the army, 2,827,000 for the different charges connected with the home department, and 568,000 for the interest of the public debt, which amounts to 11,288,000 florins.

The military force of the grand dutchy consists of about eight thousand men; its contingent to the Germanic confederation amounts to six thousand. It may have besides at its disposal in time of war a considerable body of landwehr: the number of these irregular troops, in 1814, amounted to ninety-five thousand men, more than sixteen thousand of whom were armed with muskets. The landwehr was declared permanent, in conformity to a decree of the 24th of August in the same year, and since 1817, a great part of it has been armed and dressed in uniform. Stein informs us, that government has granted rewards to those who supply on credit the necessary arms and clothing.

The government has been already commended for the encouragement which it affords to commerce and industry; but it has been accused, and it is to be feared too justly, of something like parsimony, in diffusing the blessings of education and knowledge. The university and schools in the grand dutchy, are perhaps sufficient for the inhabitants; but it was most impolitic in government to regulate education by the rank of the different individuals. In order to diminish the number of students, says Stein, a decree was issued in the month of June, 1813, by which the children of burghesses and peasants were prohibited from attending the university, unless they had distinguished themselves at some of the public schools,^e and even in that case the sovereign's permission must be obtained. What can be gained by excluding a numerous class from the benefits of instruction, and by depriving the country of their most valuable services? It is a misfortune, from the pecuniary sacrifices attending education, that some men must remain ignorant; but it is injustice to prevent them from educating their children.

The grand dutchy is divided into three provinces; that of Starkenburg, in which the principal towns are Darmstadt and Offenbach; that of Upper Hesse, of which Giessen is the metropolis, and in which there are, besides, eight other towns of two or three thousand inhabitants; and that of the Rhine, of which Mayence is the capital, and in which the next most important towns are Worms and Bingen. We shall first give a short account of the towns in Upper Hesse.

Giessen, a town to which Fabri assigns 6000 inhabitants, although its present population appears to be upwards of 8000, is situated at the confluence of the Wieseck and the Lahn. Its university has been long known;^f the library, the observatory and the botanical gardens, where lectures are delivered on every branch of rural economy, prove that the useful arts, as well as the sciences, are not neglected. The principal public buildings are the castle, the arsenal, and the church of St. Pancras. Hertz, a celebrated jurist, better known by the Latin name of Hertius, was born in

^a "Calcaire ancien." See p. 675.

^b "2600 Fr. feet."

^c "600 toises."

^d The original simply states, that since 1819 a code has been in preparation. According to Hassel (Statistik, 1822) a commission had been appointed for framing a code of laws, but at that time the code had not been

VOL. II.—NOS. 117 & 118.

completed, and the country was then governed by the old common law and the statutes.—P.

^e "No individual of the class of burghesses or peasants can educate his children at the university, unless he has previously furnished the necessary certificates of capacity —." See Baden, p. 679.—P.

^f It was founded in 1607.

the town; he is the author of several valuable works, and of different memoirs on the history and geography of ancient Germany.^a Giessen carries on a trade in woollen and cotton goods. Alsfeld is the next largest town in Upper Hesse; it possesses three cloth manufactories, a castle, two churches, an orphan hospital, and upwards of three thousand inhabitants.

Darmstadt, the capital, was the largest town in the country, before Mayence was added to the principality. It is watered by a small river of the same name, and contains 16,000 inhabitants. It is divided into the old and new town; a considerable portion of the first has fallen into decay; the second is modern and well built; in that quarter of the town are situated the ducal castle, a museum containing a gallery of paintings, a hall filled with statues and ancient armour, and a cabinet of natural history, a military school, a drawing academy, a school of arts, a gymnasium and a library containing more than ninety thousand volumes. Among the principal edifices are a very large building in which the troops are exercised, the opera and the cathedral; in the last are the tombs of several princes of the reigning family.

Offenbach, peopled by 7000 inhabitants, and rich from its trade in silk, oil-cloth, tobacco and lace, lies to the north of Darmstadt, on the banks of the Rhine.^b

Bingen is built at the confluence of the Rhine and the Nahe, in an agreeable and fruitful district; though not containing more than 3000 inhabitants, it carries on a considerable trade in corn, wine, leather and woollen stuffs.

Worms appears to be the town of *Borbetomagus*, which Ptolemy calls the principal city of the *Vangiones*, a people that shall be mentioned in the account of the Rhenish provinces belonging to Bavaria. The same town received the name of *Vormatia* under the second race of the French kings. It was ruined by the Vandals in the year 407, by the Huns in 451, by the Normans in 891, and lastly, by the French in 1689. That ancient city has long since recovered from all these calamities, indeed it has not at present the appearance of a modern town; the streets are narrow, and many of the houses are ill built. Some public buildings must be excepted; these are the cathedral, the town-house, and the mint. Its population amounts to 7000 inhabitants; it possesses a lucrative commerce, which consists principally in the sale of the wines that are produced in the fertile lands on the left bank of the Rhine.

Mayence, or, according to its German name, Mainz,^c the largest city in the grand duchy of Hesse, stands at a short distance below the confluence of the Rhine and the Maine. It contains 27,000 inhabitants, some fine edifices and several useful institutions. The town is by no means regularly built; almost all the houses are constructed of red sandstone, and almost all the streets are narrow and crooked. It has been said that there are only three regular streets in Mayence; and the *Grosse-Bleiche* is without

^a "John Nicholas Hertius, a lawyer, who died in 1710, aged 59 years, was an inhabitant of Giessen. He is known by several valuable works, and among others, by treatises in Latin on the history and geography of ancient Germany." Encyc. Method. art. Giessen.—J. N. Hert or Hertius, professor of law at Giessen, was born at Oberkle, 1652. Beauvais, Dict. Hist.—P.

^b Offenbach stands on the S. bank of the Maine to the E. of Frankfurt.—P.

^c Germ. Mainz, Fr. Mayence, Eng. Mentz.

^d Grosse-Bleiche or great bleaching place.—Tr.

^e This building, called the Public Library, also contains the museum of Roman antiquities, and a gallery of pictures.—P.

doubt the finest.^d The only tolerable squares are the market-place and the Green Square; the cathedral is remarkable for its construction, its antiquity and the valuable ornaments contained in it. The exterior might be still more imposing, if the two principal turrets were rebuilt. A large arsenal and a palace that belonged formerly to the Teutonic knights, may still be seen in the town, which is now one of the four strong places of the Germanic confederation. But the most curious building, or the one best deserving of being visited, is that in which the principal collections are arranged; namely, three cabinets of medals, a museum of natural history, a valuable assortment of philosophical instruments, and a library containing more than eighty thousand volumes.^e There are also in Mayence, a seminary, a gymnasium, and a school of medicine. The museum of Roman antiquities collected within the walls and in the neighbourhood has never been considered inferior to any in Germany. It is well known that Mayence was a place of some importance when the Romans were masters of the country, and that it was for a long time inhabited by Drusus. Several authors believe that its Roman name was *Mogontiacum*.^f It disputes with Strasburg and Harlem the invention of printing; it cannot be denied that the remains of the house in which Guttenberg lived, are still to be seen in the town. If indeed Mayence can boast of having first discovered that art by which knowledge and light triumph for ever over barbarism and darkness, it appears to have profited little by it, so few men of genius and learning have been born within its walls. Mayence is not a manufacturing place, but its territory enables it to carry on a considerable trade in wine, grain, cattle, tobacco, and lastly in iron and coal.^g The best wine in the country is produced in the neighbourhood of Hochheim,^h at no great distance from the town; in some years, a measure consisting of six hundred pints taken from the wine-press, has been sold for £84.ⁱ The vineyards that cover the hills along the Rhine, render the country near Mayence as beautiful as any that can be imagined. The river flows majestically northwards, and the surface of its waters is not less than 1400 feet in breadth; on the south it forms the boundary of an immense plain, and the high mountains on the north seem to impede its rapid course. The green islands in the Rhine, the villages that rise like so many amphitheatres on the heights, the blue tints of the old town of Mayence, contrasted with the surrounding verdure, and the various views on every side, must strike even those who are least sensible to the charms of nature.

Lippe-Detmold is the largest of the numerous principalities that remain to be described;^k its surface may be equal to three hundred and thirty-six English square miles,^l and according to Hassel its population amounted, in 1822, to seventy-one thousand two hundred individuals. It is bounded on the north by the territory of Rinteln, which belongs to electoral Hesse, and on the east by a portion of the

^f *Maguntia, Moguntia, Moguntiacum*, Moreri. *Moguntiacum*, Encyc. Method. Geog. Anc. art. Gallia. *Moguntium*, Ed. Encyc.

^g The merchandise conveyed to it by water during the year 1819, amounted in weight to 1,342,314 quintals, and the exports by the same route, to 1,386,345. The exports in the following year were no less considerable, and there were besides 120,000 quintals exported by land. See *Allgem. Hand. Zeitung*, 1825.

^h A town on the right bank of the Maine, near its mouth. It has given its name to the variety of Rhenish wine called *Hock*.—P.

ⁱ "In favourable years, a cask of 600 pints taken from the wine-press, is sold for 2000 francs."

^k With the exception of the duchy of Brunswick.

^l "Its surface is equal to 56 sq. leagues."

kingdom of Hanover, and of the principality of Waldeck ; on every other side it is encompassed by the Prussian province of Westphalia.

The lands in the principality belong to the limestone^a formation, to which the Germans have given the name of *muschelkalk*. Consequently they abound in that variety of sandstone called *quadersandstein* in Germany. The other mineral substances are salt, marble, and clay that is well adapted for ordinary earthen ware. The soil is fruitful, although the greater part of the country is mountainous ; it produces corn, fruit, flax and hemp. There are large forests of oaks, and extensive tracts covered with trees.

The industry of the country is principally confined to cotton spinning, to the manufacture of linen and woollen stuffs, and to the fabrication of tobacco pipes made of silicated magnesia, a substance known in commerce by the name of *ecume de mer*.^b The inhabitants, who are almost all Calvinists, have enjoyed a representative constitution since the year 1819, and before that period they succeeded in abolishing the impost on wines and several other articles ; the duties on spirits, stamps and playing cards, are the most important, which have been retained. The people in some powerful nations might be desirous of similar reforms.

The principality of Lippe-Detmold possesses a revenue of £42,000 ;^c government pays great attention to economy, so much so that a considerable public debt in proportion to the size of the state has been much diminished by the excess of the revenue above the expenditure. The military force amounts to seven hundred men.

The princes of the house of Lippe are probably descended from Wittkind, who lived more than a thousand years ago. But some genealogists, considering perhaps that origin too recent, go back to the German nobles during the period that the country was governed by the Romans. The family was so important in the reign of Charlemagne, that in time of war the people on the banks of the Weser chose their chief from among these princes. The title of count was conferred on them by the emperor Charlemagne ; but it is difficult to trace the filiation to a more remote period than the commencement of the twelfth century.^d

The five largest towns in the principality are not places of much importance. Detmold on the Werra, the residence of the prince, contains only two thousand four hundred inhabitants. The principal buildings and institutions are two Calvinistic churches and one of the Augsburg communion, a college with a library, a school of industry, a seminary for teachers, an infirmary, an orphan hospital, a house of correction, and a bible society. The old quarter, which Clavier supposes the ancient *Teutoburgium*, is dirty and ill built, but the streets in the new town are clean and regular. Lemgo or Lemgow on the Vega is more populous than the capital. The number of its inhabitants is not less than three thousand four hundred. It possesses a gymnasium and a convent for women ; its trade consists in linen and woollen stuffs, and also in tobacco pipes, made of silicated magnesia. Dr. Kämpfer, a celebrated traveller, was born in the town ; he was the author of several works, but the natural and civil history of Japan has been consi-

dered the most valuable of his writings. Uffeln or Salz-Uffeln on the small river Salza contains about one thousand four hundred inhabitants. A considerable quantity of salt is extracted from the springs in its vicinity. Horn, the population of which is not much greater, lies near the forest of Teutoburg. A row of eight large stones placed vertically, may be observed at no great distance from the walls ; several antiquaries have regarded them as druidical monuments ; the inhabitants call them the *extersteine*. Lippstadt, a town of three thousand inhabitants, may be considered as forming a part of the principality. It is situated on the Lippe, and possesses a small territory that is enclosed in the Prussian province of Westphalia. Formerly a free and imperial town, it is now subject to two masters, the prince and the king of Prussia. While some authors consider it the ancient *Luppia*, a town mentioned by Ptolemy, others maintain positively that it was not founded before the twelfth century.^e It is well fortified, and possesses a gymnasium.

The principality of Lippe-Schauenburg^f extends to the north of the one that was last mentioned. It is separated from it by the Hessian territory of Rinteln, which joins it on the east. It is bounded by Hanover on the north, and by the province of Westphalia on the west and south. The extent of the possessions belonging to the prince of Lippe-Schauenburg may be equal to a hundred and seventy-two English square miles,^g and the number of inhabitants to twenty-five thousand. The revenue has been estimated at five thousand eight hundred and thirty-four pounds,^h and the armed force amounts to two hundred and forty men.

The land in the territory is of the same nature as that in the principality of Lippe-Detmold. There are several mineral springs, and extensive beds of coal. The fields are fertile in corn, flax and fruit ; the forests yield more timber than what is necessary for the use of the inhabitants.

The government, like that in the last principality, is representative. Servitude was abolished in the year 1810 ; but feudal services and other burdens are still exacted from the country people. In 1816, the prince granted to the deputies of the districts, the privilege of examining the public expenses, of regulating the amount of the contributions, and the mode of collecting them, of deliberating on the laws, and of proposing any measure for the good of the country.

Two towns and three villages are contained in this small principality. Bückeberg or Bückenburg, the capital, is situated on the river Aa. It is adorned by a castle in which the prince resides, it has its gymnasium, and contains 2000 inhabitants. The same town was the birth-place of Büsching the celebrated geographer. Stadthagen, situated in an agreeable valley on the Diemen,ⁱ is peopled by 1500 inhabitants. Mineral springs have been discovered in the neighbourhood.

The principality of Schwarzburg-Rudolstadt, the superficial extent of which cannot be less than three hundred and eighteen square miles,^k is bounded by the Prussian province of Saxony on the north, by the grand duchy of Weimar on the east, and by the Saxon duchies of Coburg-Gotha and Meinungen on the south and west. It furnishes a contingent of about five hundred men to the Germanic confede-

^a " Calcaire ancien."

^b Germ. *meerschäum* (sea foam.)

^c " About 1,000,000 francs."

^d Moreri's Dictionary.—Supplement, art. Lippe.

^e Dictionnaire géographique de Bruzen de la Martinière.

^f Schauenburg-Lippe. (Hassel.)

^g " Nearly 27 sq. leagues."

^h " 140,000 francs."

ⁱ Dymel.

^k " Extent 53 sq. leagues."

ration, and possesses according to Stein a revenue of £22,917;^a its population, according to Hassel, amounts to 55,000 individuals.

Calcareous rocks^b occupy the northern part of the principality, and primitive the southern; the heights of the Thuringerwald are mostly formed by the latter. Some of these heights reach to the elevation of thirteen or fourteen hundred feet, and are covered with forests. Plains and fruitful valleys, such as the vale of Helm, are situated near the base of these mountains. Mines of silver, copper and iron have been discovered in many parts of the country. The inhabitants are employed in working these metals, and in making different kinds of stuffs.

A representative government was established in the year 1816. The legislative assembly is composed of thirty-six deputies, six of whom are chosen from the proprietors of baronial estates, other six from landed proprietors not possessing baronies, six are elected by the towns, and eighteen by all the citizens possessing a certain amount of taxable property. They are all appointed for six years.

Rudolstadt, Frankenhausen and Stadt-Hilm^c are the principal towns in the country. Rudolstadt contains 4600 inhabitants. It is the residence of the prince, and several valuable collections are contained in the castle. The town is watered by the Saale; it possesses a museum of natural history, a library of 50,000 volumes, a gymnasium and a school for the education of poor children. It carries on a trade in porcelain and woollen stuffs. Frankenhausen on the Wipper, the place at which the legislative assembly meets, is peopled by 3,600 individuals. Stadt-Hilm or Hilm bears the name of the river that waters it. Its 2000 inhabitants are mostly employed in manufacturing different sorts of woollen stuffs. The two towns of Heringen and Kalbra, in the government of Erfurt, containing each about 1700 inhabitants, belong jointly to the Prince of Schwarzburg-Rudolstadt, the Count of Stolberg and the King of Prussia.

The principality of Schwarzburg-Sondershausen is equal in extent to two hundred and ninety-four English square miles;^d the number of troops amounts to four hundred men, the revenue to £28,125,^e and Hassel estimates the population at 46,500 inhabitants. It may be thus seen that although it possesses a higher revenue than the former principality, its population is not so great. It is surrounded by the Prussian province of Saxony; the soil is productive. Some mountains are situated in the western extremity; they are composed of sandstone and limestone.^f

Sondershausen, the capital, is built at the confluence of the Wipper and Bober. It has a gymnasium, a theatre and a cabinet of natural history; it contains 3400 inhabitants. The castle of the prince, the baths of Gunther, and a sulphureous spring, are situated near the town. Several linen manufactories have been built at Greussen, a town of 2000 inhabitants. The most of the fields in the neighbourhood are sown with flax. Arnstadt is the most important town in the principality; the Gera divides it into two parts; it contains a lyceum, a museum of natural history, a castle, an orphan hospital and three churches. Its manufactures consist of coarse linen and brass wire, and its trade is considerable in proportion to its size. The most valuable cop-

per mine in the country is situated in the neighbourhood of the town.

The family of Reuss consists of several princes; the richest principality belongs to the elder branch; the younger is subdivided into four lesser branches, whose possessions are very unequal both in point of population and superficial extent. Genealogists have traced the origin of the family to the year 950, and they suppose it to be descended from Eckbert, count of Osterode in the Hartz. It has been affirmed that the name of Reuss or Ruzzo was originally a surname given to one of these princes, who accompanied the emperor Frederick the Second to the holy war about the year 1238. The same prince was taken prisoner by the Mussulmans, and sold as a slave to a Russian merchant, who conveyed him to Russia. After having passed twelve years in a state of slavery, the Tartars made an incursion into the part of Russia where he resided, and carried him to Poland and Silesia, from whence he made his escape and fled to the court of the emperor. He retained a surname that reminded him of his misfortunes, and transmitted it to his two sons, from whom the two branches of the family are descended.^g

The territory of Reuss-Greiz, contiguous to the kingdom of Saxony, belongs to the eldest branch of the same family. Its surface may be equal to a hundred and twenty-seven English square miles;^h its population amounts to 23,000 inhabitants, its revenue to 140,000 florins, and its contingent to the Germanic confederation to 200 men. Its territory, in which hills and vallies are interspersed, is fruitful in corn. The inhabitants are very industrious; they are employed in manufacturing woollen stuffs, working metals, and preparing steel. Greitz, the capital, situated in an agreeable and fruitful valley near the Elster, contains 6000 individuals. Zeulenrode, a trading town of 3600 inhabitants, has an arsenal and an hospital. These are the only two towns in the principality.

The changes that have been made since 1814, in the limits of the principalities belonging to the younger branch of the Reuss family, have not been mentioned in recent geographical works.ⁱ The younger branch of that house is at present divided into the families of Reuss-Schleitz and Reuss-Lobenstein-Ebersdorf. It is unnecessary to mention the separate branch of Reuss-Kœstritz, which possesses, under the sovereignty of Reuss-Schleitz, the territory attached to Markthohenleuben, a small town of 2000 inhabitants, and the burgh of Kœstritz on the Elster, which carries on a trade in ale and beer. The principality of Reuss-Schleitz, including half the territory of Gera, is not much less than a hundred and sixty-two English square miles,^k and the number of inhabitants amounts to 28,000. Schleitz, the capital, is built on the Wiesenthal; it contains 4600 individuals, and has its cloth, linen and muslin manufactories. Two small seignories in Silesia, and some villages in the province of Brandenburg, and in the kingdom of Saxony, belong also to the prince of Reuss-Schleitz; their total population may be equal to 7500 souls.

A territory of a hundred and ninety-two English square miles,^l including the half of Gera, makes up the principality of Reuss-Lobenstein-Ebersdorf. Although larger than the

^a "550,000 francs."

^b "Calcaire ancien." See p. 675.

^c Hlm or Stadt-Hlm.

^d "49 sq. leagues."

^e "About 675,000 francs."

^f "Calcaire ancien."

^g Zopfen, Reussische Geravische Stadt und Land-Chronica, 1678.

^h "Extent, 19 sq. leagues."

ⁱ Nothing is said concerning the new division of the possessions of the younger line of Reuss, in Pinkerton's Abridgment of Modern Geography, revised by MM. C. A. Walckenaer and J. B. Eyriés, and published in 1827. M. Ad. Balbi was the first who took notice of it. See Tableau de la Balance politique du globe.

^k "Extent 27 square leagues."

^l "32 sq. leagues."

former, its population, according to the nearest approximations, does not exceed 27,000 inhabitants. The territory yields a sufficient quantity of metal to supply several important iron works; it is also well supplied with alum and vitriol, the sale of which forms not the least valuable portion of its commerce. Lobenstein, the residence of the prince, is peopled by 2800 inhabitants; the trade of the place consists in leather, and in cotton and woollen stuffs. Ebersdorf, though only a burgh, has derived considerable wealth from its trade in cotton manufactures, soap and tobacco.

Gera, which together with its territory belongs in common to the two princes of the younger line of Reuss, may be called a place of some importance, when contrasted with the two capitals that have been last mentioned. The inhabitants are rich and industrious, and although the town was almost wholly destroyed by fire in the year 1780, it has been much improved since that period; its commerce too has increased so rapidly, that it is now called in Germany *Little Leipsick*.^a Its population in 1822, amounted, according to Hassel, to 7373 individuals. It contains a house of correction, a gymnasium and several schools, one of which is reserved for the children of the poor. But its wealth depends on its cotton and woollen goods, its porcelain, earthen ware and leather. The town and manufactories are mostly supplied with water from the Elster, on which it is built. The territory of Gera is contiguous to Prussia, and the dutchies of Saxe-Altenburg and Weimar. The other territories, that form the different principalities of Reuss, are bounded by the kingdom of Saxony on the east, by the two last mentioned dutchies on the north, by the Prussian principality of Saalfeld and part of Schwarzburg on the west, and lastly, by Bavaria on the south.

The revenues of Reuss-Schleitz and Reuss-Lobenstein-Ebersdorf, according to Hassel, are together equal to 340,000 florins; the contingent of troops that they furnish to the confederation, is fixed at five hundred men.

The house of Anhalt is one of those that claim Wittikind for their founder. It boasts in common with several other families of being the most ancient in Europe. Limnæus,^b a learned German lawyer, does not hesitate to carry it back to Ascanas or Ascenazus,^c the son of Gomer, and grandson of Japhet, the son of Noah. He might as well have traced it to the first man mentioned in Genesis. Erudition is liable to many errors, if it be not guided by judgment; it has prompted more than one author to remove the impenetrable veil that conceals the origin of nations and families. Some genealogists in their attempts to trace the origin of the ancient counts of Ascania, from whom the dukes of Anhalt are descended, have imagined that certain tribes in Asia Minor, quitted the marshes of Ascania in Bithynia, and settled in the ancient forests of Germany. Hence the origin of Ascenazus, a chief the Ascanian tribes, whose descent has been deduced from a grandson of Noah. The confidence due to these etymological researches, can now be rightly ascertained; such writers as Salverte^d and Balbi^e have not disdained to prove their futility. The origin of the dukes of Anhalt may be probably traced as far back as the eighth century; it has been affirmed by some authors, that they are descended from Esikon, count of Ballenstedt, who lived in the eleventh century. The filiation of the

family may be traced to Henry, first prince of Anhalt, or in other words, to the commencement of the thirteenth century.^f The family is at present divided into three branches: those of Anhalt-Dessau, Anhalt-Bernburg and Anhalt-Kœthen; their possessions constitute three different dutchies, which may be briefly described.

The dutchy of Anhalt-Dessau consists of several detached territories on the banks of the Elbe and the Mulda. Eight towns, two burghs, a hundred and fifteen villages and hamlets, are scattered over a surface of two hundred and seventy square miles.^g It contained in 1822, a population which, according to Hassel, amounted to 56,200 inhabitants.

The land is of secondary formation, and composed chiefly of limestone^b and sandstone; it also abounds in clay well adapted for earthen ware. The agricultural produce is modified by the nature of the soil, which is very different in different parts of the country. Many low and humid places are covered with lakes and marshes; the land in others is light and sandy. The crops consist of grain, flax, potatoes and hops. The cattle, particularly the sheep, are often exposed to epidemic diseases. The rot was so prevalent in 1815, that a regulation of government made it imperative on most of the proprietors to inoculate their sheep, a measure which checked the ravages of the contagious virus.

There are several breweries and tobacco-works, and more than a hundred and twenty cloth manufactories in the dutchy. Oil and paper mills, earthen works and distilleries have been erected in several parts of the country. The exports consist of oil, carrot seeds, corn, fruits, wool, cattle and fish. Stein estimates the value of these exports at 500,000 rix-dollars, and that of the imports at 1,000,000. According to the same author, the military force consists of 800 men, and according to Hassel, the revenue amounts to 710,000 florins.

Dessau, on the Mulda, is a well built town, containing a population of about 20,000 individuals.^h The streets are broad and straight, and the number of squares is not less than seven. There are four churches, a synagogue, three hospitals, an orphan-house, an alms-house, public baths, several schools and some manufactories. The ducal palace is the finest public building. Wörlitz, a small town of two thousand inhabitants, is adorned with a large castle and extensive gardens belonging to the duke. Zerbst on the banks of the Elbe contains 7300 inhabitants; it possesses a gymnasium and perhaps the most ancient Protestant school for girls in Germany; it was founded more than three hundred years ago.

The dutchy of Anhalt-Bernburg is formed by several detached districts; their surface may amount to two hundred and sixty-four square miles.^k The population has been estimated by Hassel at 38,400 inhabitants, who are distributed in seven towns and fifty-four villages. The land on the west is mountainous and covered with forests; fruitful fields and extensive plains make up the greater portion of the eastern districts. The climate is temperate, particularly in the eastern part; the opposite extremity, which extends to the sides of the Hartz mountains, is subject to more severe cold. Many mines are worked in the coun-

^a Gera is called Little Leipsick, in Encyc. Method. Géog. Mod. t. I. 1782.—P.

^b Notitia Imperii.

^c Ashkenaz, Gen. x. 3.

^d Essai hist. philosoph. sur les Noms d'Hommes, 2. t.

^e Introduction à l'Atlas ethnographique de Balbi.

^f Dictionnaire de Moreri, art. Ascanie.

^g "45 sq. leagues."

^h "Calcaire ancien."

ⁱ 9800. (Hassel, Statistik, 1822.) 7000, Ed. Encyc. 9400, Morse.

^k "44 sq. leagues."

try, and some of them are very profitable. The agricultural products are nearly the same as those in the last dutchy. The people are engaged in different branches of industry; several manufactures, iron, steel, wire and sulphate of copper or vitriol are exported.

Bernburg, the capital, is the most important town in the principality; placed on the side of a hill, and watered by the Saale, it is divided into three separate quarters, two of which are encompassed with walls; the third commands the other two, and the ducal castle or the residence of the prince is situated in that part of the town. Bernburg is well built; it contains a mint, three churches, and several hospitals, and carries on a trade in earthen ware and tobacco. Its population is estimated by Hassel, at 5340 individuals. Several small vineyards are planted in the neighbouring country. Ballenstedt is adorned with an ancient ducal castle, the only remarkable edifice in that gloomy and ill built town. Harzgerode, another small town peopled by 2200 inhabitants, many of whom are employed in working the silver and iron mines in the vicinity, is situated at the height of 1400 feet above the level of the sea; one of the mines near Mædchensprung yields annually about twelve hundred marks of silver. At no great distance from it is an obelisk, 58 feet in height, raised to the memory of the late duke by his successor. A body of four hundred men forms the military force of the dutchy of Anhalt-Bernburg; the revenue has been valued at 450,000 florins.

The territory of Anhalt-Kœthen is equal to two hundred and twenty-eight English square miles^a in superficial extent; there are four towns, one burgh, and ninety-three villages in the dutchy. The population amounted in 1822 to 33,500 inhabitants. The greater part of the land is low and fruitful, but the people are not so industrious as in the two other dutchies; linen and woollen stuffs are the principal manufactures. The revenue, including that derived from the ducal domains, has been valued at 320,000 florins. The armed force consists of four hundred infantry.

Kœthen or Cœthen, the chief town of the dutchy, is situated on the banks of the Zittau, and contains a population of 5500 souls. The prince resides in the capital, in which there are several seminaries, a normal school, a library, a museum of natural history, and a gallery of paintings. The people carry on a trade in woollen stuffs, gold and silver thread, embroidered work and lace.

The greater portion of the dutchy of Brunswick is formed by a territory bounded by Prussia on the east and the south, and by Hanover on the north and the west. The territories attached to it are that of Blankenburg on the Hartz mountains, contiguous to the possessions of the house of Anhalt, and to the kingdom of Hanover; secondly, that of Ganderzein,^b to the south-west of Brunswick, surrounded by Hanover; thirdly, that of Thedinghausen on the banks of the Weser, near the centre of the same kingdom; lastly, that of Kalwœrde,^c a district encompassed by the Prussian province of Saxony. All these possessions form together a

superficial extent of one thousand one hundred and eighty-two English square miles,^d and the population, according to Hassel, amounts to two hundred and thirty-four thousand four hundred inhabitants, almost all of whom are Lutherans.

The principal part of the dutchy, which includes the territories of Brunswick, Helmstedt, and Wolfenbüttel, consists of lands that are different in their geological structure. Deposits of tertiary limestone^e extend to the north of the capital. Rocks of secondary formation, in which are comprehended the *muschelkalk* and *quadersandstein* of the Germans, serve as a support for these deposits on the south. The whole country is well wooded and intersected with chains of hills. The granitic branches of the Hartz extend across the territory of Blankenburg, and their sides are covered with forests. The vallies in the district of Ganderzein yield rich harvests; the fields in Thedinghausen are low and fruitful; Kalwœrde is not broken by hills, and the soil abounds with sand.^f

The mineral wealth of the principality consists in different metals, such as iron, lead, copper, mercury, and even gold and silver. Besides these substances, bitumen, marble, gypsum, slate, rock salt, lime, porcelain clay and potter's clay are obtained in different parts of the country. The soil in general is fruitful, and affords in many places rich pasturage. The agriculture of the country has been much improved; the crops consist of different kinds of grain, rape seed, hops, madder, tobacco and succory. The last plant serves for two purposes; it is mixed with coffee, and used in preparing silk. The trade of the dutchy is very considerable; the manufactures are cloth, linen and silk, oil and paper, wrought iron, glass, crystal^g and porcelain. The revenue has sometimes exceeded two hundred and fifty thousand pounds.^h The army is composed of two thousand men.

The house of Brunswick is descended from Azo, marquis of Este in Tuscany,ⁱ who lived in the eleventh century.^k The same house has given dukes to Saxony and Bavaria, and a younger branch of the family has been raised to the throne of England.

Brunswick (Germ. *Braunschweig*), the capital of the dutchy, is situated in a large plain, and watered by the Ocker, which divides it in several places. It is said to have been founded in 868, by Bruno, son of Adolphus, duke of Saxony, after whom it has been called. The streets are broad and straight, and the most of it is well built. The town and the different suburbs occupy a great superficial extent, and the population exceeds 32,000 individuals. There are twelve churches and the same number of squares; that of the Burg is adorned by a bronze lion, which was cast in the twelfth century by order of Henry the Third, surnamed the Lion. The palace, the arsenal, the cathedral, which contains the tombs of the ducal family, and the Gothic townhouse, are the principal buildings; but the church of St. Andrew ought to be mentioned; its tower reaches to the height of three hundred and eighteen feet. Among the institutions are a military school and other se-

^a "41 sq. leagues."

^b Gandersheim.

^c Calwœrde.

^d "197 sq. leagues."

^e "Calcaire grossier," first tertiary limestone.

^f "The district of Ganderzein contains many fruitful vallies, that of Thedinghausen is flat and fertile, and that of Kalwœrde is level and sandy."

^g "Glases," plate glass, mirrors.

^h "Its revenue amounts to nearly 6,000 000 francs."

ⁱ This is a mistake of the author's, probably in quoting Moreri, art. Brunswick—"The house of Brunswick is descended from Azo of Este, marquis of Tuscany." Este, from which the family took their title, is a town in the Venetian territory, 13 miles S. W. of Padua. The family at first took the title of lords of Este, and the titles of Azo were marquis of Italy (Tuscany, Moreri,) and lord of Este and Rovigo. Azo II. first took the title of marquis of Este about the beginning of the 13th century. Moreri. Beauvais.—P.

^k Dictionnaire de Moreri, art. Brunswick.

minaries;^a it possesses a valuable collection of natural history, antiquities and engravings,^b in which are preserved the coat and the sword of the duke of Brunswick, who was killed at the battle of Ligny^c in 1815. The spinning wheel is said to have been invented at Brunswick in the year 1534. Coffee mixed with succory, was first introduced in the same place, and it came into general use about sixty years ago. The town carries on a trade in cloth and linen.

Wolfenbüttel, a fortified place on the Ocker, contains an arsenal, a gymnasium and a valuable library, in the court of which a monument has been erected to the memory of Lessing. Its trade consists in tobacco and also in linen and woollen stuffs. The population amounts to 7000 inhabitants.

Scheppenstedt, though well built, is not a place of any importance. Helmstedt contains 5300 inhabitants, and many of them are employed in different manufactories; the baths of Amelia are situated in an agreeable valley near the town. The botanist may find many rare plants at no great distance from them, the geologist may discover the bones of antediluvian elephants in the alluvial lands near the village of Thiede, and the antiquary may observe on the Cornelius-Berg, many of those stones placed vertically, which are commonly supposed to have been raised by the Druids.

Blankenburg, a small town with a college, a hospital, two churches, and large iron storehouses, is situated in the mountainous region, where the last branches of the Hartz terminate. It is commanded by a height on which one of the largest castles in Germany has been built. The same castle belonged to the princes of Blankenburg, and it was for some time the residence of the king to whom France is indebted for its constitutional charter.

The territories which make up the principality of Waldeck, are the counties of Waldeck and Pyrmont, forming together a superficial extent of three hundred and sixty-eight English square miles.^d They are peopled by about fifty-four thousand inhabitants, and governed by the descendants of Wittikind, count of Swalenberg and Waldeck, who lived in the time of Charlemagne.

The ancient county of Waldeck, which forms the greater part of the principality, is one of the most elevated countries in Germany. It lies between Hesse and the Prussian province of Westphalia. The Rothhaar and Egge mountains, which with their ramifications traverse the country from the south-west to the north-east, belong to the granitic formation. The highest summits are those of Poen and Dommel. Several extinguished volcanoes are situated in the western part of the county, the largest of which is the Lammsberg. It may be inferred, from what has been already said, that the country is stony and unfruitful. The air, though keen, is salubrious. Several mines, as well as marble and slate quarries, are worked in the mountains. Particles of gold are found in the channels of the rivers that water the vallies. Thermal and medicinal springs have been discovered in several places.

^a Caroline college, erected by Duke Charles in 1745, two gymnasiums, a school for anatomy and surgery, and a college for the study of physic, instituted in 1757. Ed. Encyc.—P.

^b This collection is kept in the ducal palace, in which there is also a library containing a rare collection of bibles and parts of bibles in different languages, amounting to nearly 1000 volumes.—P.

^c The duke of Brunswick was killed at Quatre-Bras.

^d "Sixty sq. leagues."

^e "Extent less than five sq. leagues."

^f "Bas tricots," knit stockings. Hassel enumerates among the manufactures of Waldeck, wove woollen stockings and knit thread stockings. The last form one of his articles of export.—P.

^g Reckoning the florin at 2s. sterl. its value in Saxony; but in the

The agricultural products are not valuable; they consist of potatoes and different kinds of grain; wheat, however, is sufficiently abundant to form an article of exportation. The industrious classes are employed in spinning wool, manufacturing woollen stuffs, working the mines, and making paper.

The chain of the Egge mountains terminates in the county of Pyrmont, between the principality of Lippe-Detmold, and the country belonging to the duke of Brunswick. That petty territory is mountainous and covered with forests; its extent may be equal to thirty English square miles,^e and it contains about 5000 inhabitants. The principal export consists in worsted stockings, which are knit by the people.^f

The revenue of the principality of Waldeck amounts to 400,000 florins or £40,000,^g and the military contingent which it furnishes to the Germanic confederation does not much exceed 500 men.^h A representative government was established in 1816; the deputies are appointed by the possessors of baronial estates, the peasantry and the burgesses of thirteen towns. An assembly is held every year, and it is the duty of the members to examine the budget, impose taxes, discuss the laws, which are submitted to it by the prince, and suggest any measures for the improvement of the country.

Corbach, which contains only 2000 inhabitants, is considered the capital; it is well fortified and surrounded with walls, and it possesses a gymnasium and other useful institutions. There is a Lutheran convent established at Schacken, and the abbess is selected from the princesses of the house of Waldeck. Holsen, though well built, and the ordinary residence of the prince, is not peopled by more than 1500 inhabitants. A colony of quakers have settled in the village of Friedenthal; they carry on a trade in steel and different articles of cutlery. Pyrmont or Neustadt Pyrmont, a place of 2400 inhabitants, has been frequented since the fifteenth century on account of its mineral waters. The various places of amusement, the strangers that resort to it in the gay season, and their number exceeds sometimes 2000, give it the appearance of an important town. The public walks are formed by several rows of lime trees. The prince possesses a country-house in the vicinity. Pyrmont exports annually 300,000 bottles of mineral water, and the duties levied on them amount to 12,000 rix-dollars.

The duchy of Nassau is bounded on the west and the north by the Prussian provinces on the Rhine, and on the east and the south by the territory of Wetzlar and the principalities of Hesse. Hassel, Crome and Lichtenstern differ concerning the extent of the duchy; it may be best to take the mean term of their calculations, and to assume that its surface is equal to one thousand six hundred and fifty English square miles. The population, it has been ascertained, amounts to 320,147 individuals.ⁱ The wealth of the country may be estimated by the number of its inhabitants,

greater part of Germany, viz. Austria, Prussia, Franconia, Westphalia, Hanover and the Rhenish provinces, its value is 2s. 4d.—P.

^h 518 men. (Hassel.)

ⁱ "If we take the mean between the estimates of Hassel, Crome and Lichtenstern, the extent of the duchy will be equal to 275 square leagues, and its population to 320,147 individuals."

^k The following details have been copied from the Geographical Ephemerides of Weimar, (v. III. page 316.)

Families	-	-	-	-	-	77,177
Men,	-	-	-	-	-	61,521
Women,	-	-	-	-	-	67,235
Male Children,	-	-	-	-	-	85,855

which amounts on an average to a hundred and ninety-four persons for every English square mile,^a a proportion that places it on a level with the most flourishing states in Europe. The revenue, relatively to the resources and extent of Nassau, is not so great as in some of the principalities that have been described; but it is equally true that lighter taxes and contributions are imposed on the people. The military establishment consists of 3000 men. The government is representative; the legislative department is formed by a chamber of peers nominated during life by the prince,^b and a chamber of deputies that are elected by the different districts.

The lands in the dutchy are composed of granite, limestone and volcanic rocks. The greater portion of the territory is mountainous; there are few plains and none of them are large. The branches of the Westerwald traverse the western part of the country; their sides and summits are covered with forests. The branches of the Taunus extend on the south, and the Salzburger-Kopf or the highest mountain in the dutchy is not less than two thousand feet^c above the level of the sea. Small but fruitful vallies are situated between the heights.

Silver, copper, iron and lead mines, marble quarries, coal and mineral waters form the wealth of the dutchy. The crops consist of corn, fruits, excellent wine, walnuts, hemp and flax. There are many cloth and linen manufactories, several paper mills, iron and copper works.

The house of Nassau is very ancient; it appears to have descended from Otho, count of Laurenburg, who was sent into Hungary by Henry the Fowler, as general of the imperial army, in the year 926. The same Otho is styled prince of Nassau by Moreri,^d but the town was not founded until after his death. It was not earlier than the year 1180, that the descendants of Otho took the title of counts of Nassau, from the name of a castle built in the preceding century near the site of the town. The same family, so illustrious from the great men that have sprung from it, was formerly divided into several branches, of which only two

Female Children,	- - - - -	83,096
Workmen,	- - - - -	3,611
Men Servants,	- - - - -	6,041
Women Servants,	- - - - -	12,511

^a "1163 per sq. league."

^b The members of the upper house are hereditary. (Convers. Lex. art. Constitut.)—The house of peers (*Herrenbank*) consists of the princes of the blood, several of the higher nobles of the country, and six deputies elected by the proprietors of baronial estates. (Hassel.)—P.

^c "1967 feet"—2604 Fr. feet (Table of Altitudes, vol. VI. p. 40, of the original.)

^d Dictionnaire de Moreri, art. Nassau.

^e Wairam IV. founder of the branch of Wisbaden, Idstein and Weilburg, was the elder, and Otho, founder of the branch of Dillenburg, Orange, Siegen, &c. was the younger son of Henry II. sixth in descent from Otho, the founder of the family.—Moreri. These two branches are called in Germany, the lines of Walram and Otho.—P.

remain at present, namely, that of Orange, descended from Otho, and that of Weilburg, which claims Walram for its founder.^e The family of Orange, which has now ascended the throne of the Netherlands, retains its sovereignty over the dutchy of Nassau; and although the latter country is governed by a member of the Weilburg branch, he acknowledges that his rights are derived from the king of the Netherlands.^f The territory of Nassau was erected into a dutchy at the time that the confederation of the Rhine was established. It contains thirty towns, twenty-seven burghs, and eight hundred and seven villages.

Braubach and Holzapfel may be mentioned among the number of the towns; silver mines are worked in their vicinity, and their annual produce amounts to more than eighty thousand florins or eight thousand pounds.^g Ditz has risen into notice from its agricultural school.^h Dillenburg, so called from the Dille on which it is situated, possesses several copper founderies. Weilburg, situated on a hill, the base of which is watered by the Lahn, is a small town with a gymnasium; silver, copper and iron mines are wrought in the neighbourhood.ⁱ The population in these small towns varies from two thousand to two thousand six hundred inhabitants.

Wisbaden,^j the capital, contains more than 6000 individuals; encompassed with hills and romantic scenery, and adorned by two castles, it is enriched by the profits derived from fourteen thermal springs, and the wealth of the numerous strangers that resort to them. If it be not admitted that its baths were known to the Romans, it might be difficult to account for the ancient tombs and the many relics of antiquity that have been found near the town. An hospital for the aged and infirm poor may be considered the most useful establishment. Among the other mineral springs in the dutchy, the one at Selters is known throughout Europe; it has exported in some years more than 800,000 bottles of water, trade that forms the principal wealth of the village, which is situated on the Embach.

^f "The branch of Orange — retains its sovereignty over the dutchy of Nassau, which is governed, on this condition, by the branch of Weilburg." The two branches have formed a family convention, by which it is agreed that in case the branch of Weilburg (*Walramische Linie*), at the head of which is the sovereign duke of Nassau, should become extinct in the male line, the branch of Orange (*Ottomische Linie*), at the head of which is the king of the Netherlands, shall inherit the whole territory of Nassau, and in case of the extinction, in like manner, of the branch of Orange, the branch of Weilburg shall inherit the grand dutchy of Luxemburg. This must be the condition on which the branch of Weilburg now governs the dutchy of Nassau, and not as a feudatary of the king of the Netherlands.—P.

^g See note (e) p. 679

^h There is an agricultural school at Idstein. (Hassel.)—P.

ⁱ Wiesbaden.

^k Generally known by the name of Seltzer water.

